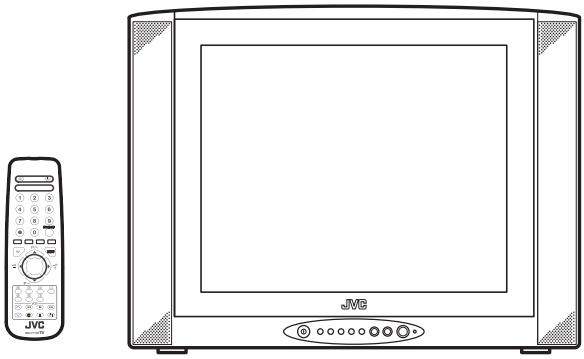
JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-20RM4SE,
AV-21RM4SE,
AV-21RM4SN,
AV-21RM4SP



[AV-21RM4]

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No.YA080
2005/2

SPECIFICATION

Item		Content			
		AV-20RM4SE	**AV-21RM4SE**	**AV-21RM4SP**	**AV-21RM4SN**
Dimensions (W × H × D)		60.6cm × 47.5cm × 49.0cm	60.6cm × 47.5cm × 47.0cm		
Mass		18kg	21kg		
TV RF System		B/G, L		B/G, D/K	B/G
Colour System	TV Mode	PAL / SECAM			PAL
	Video Mode	PAL / SECAM / NTSC 3.58 / NTSC 4.43			PAL / NTSC 3.58 / NTSC 4.43
Sound System		A2 / NICAM			
Teletext System		TOP / WST			
Receiving Frequency	VHF(VL) VHF(VH) UHF CATV	46.25MHz - 168.25MHz 175.25MHz - 463.25MHz 471.25MHz - 863.25MHz S01 - S41 / S75 - S79 (B/G), S01 - S20 / S75 - S77(L)			
Intermediate Frequency	VIF SIF	38.9MHz 33.4MHz (5.5MHz:B/G) 32.4MHz (6.5MHz:L)			
Colour Sub Carrier Frequency	PAL SECAM NTSC	4.43MHz 4.40625MHz / 4.25MHz 3.58MHz / 4.43MHz			
Power Input		AC220V - AC240V, 50Hz			
Power Consumption		85W (Max) / 4W (Standby)	85W (Max) / 3W (Standby)		
Aerial Input Terminal		75Ω unbalanced, coaxial			
Picture Tube Size		Visible size : 48cm (20"), Measured diagonally (H:41.2cm × V:31.2cm)	Visible size : 51cm (21"), Measured diagonally (H:41.6cm × V:31.5cm)		
High Voltage		26kV (in cut-off service mode)	28kV (in cut-off service mode)		
Speaker		5.7cm × 12.6cm, Oval type × 2			
Audio Output		5.5W (10%THD)			
EXT-1 Input / Output		21-pin Euro connector (SCRAT socket) × 1			
EXT-2 Input	Video Audio(L/R)	1V(p-p) 75Ω, RCA pin jack × 1 500mV(rms) (-4dBs), High Impedance, RCA pin jack × 2			
Headphone Jack		Mono mini jack 3.5mm × 1			
Remote Control Unit		VE-30017763 (RM-C1100), (AA/R06 dry battery × 2)			

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS [EXCEPT FOR UK]

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual**. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.

(5) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).

(6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

(7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

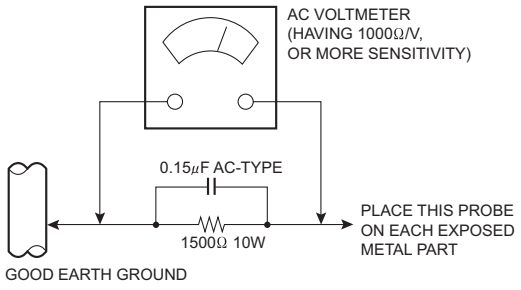
(8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000Ω per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



1.2 SAFETY PRECAUTIONS [FOR UK]

(1) The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessary be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may cause shock, fire, or other hazards.

(4) The leads in the products are routed and dressed with ties, clamps, tubing's, barriers and the like to be separated from live parts, high temperature parts, moving parts and / or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

WARNING

(1) The equipment has been designed and manufactured to meet international safety standards.
(2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
(3) Repairs must be made in accordance with the relevant safety standards.
(4) It is essential that safety critical components are replaced by approved parts.
(5) If mains voltage selector is provided, check setting for local voltage.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

- It is a remote controlled color television.
- It can tune cable channels.
- Controlling the TV is very easy by its menu driven system.
- It has 1 Euroconnector sockets for external device.
- Front AV Input available.
- Simple teletext (Toptext, WST) system.
- It is possible to connect headphone.
- Direct channel access.
- APS (Automatic Programming System).
- All programs can be named.
- Forward or backward automatic tuning.
- Sleep timer.
- Child Lock.
- Automatic sound mute when no transmission.
- 5 minutes after the broadcasting (closedown), the TV switches itself automatically to stand-by mode.

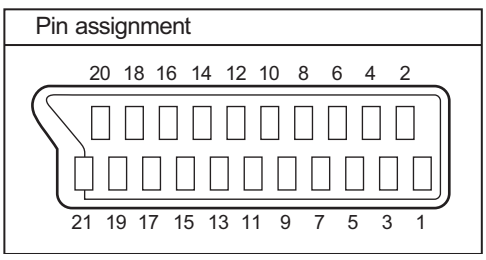
2.2 MAIN DIFFERENCE LIST

Item	AV-20RM4SE	AV-21RM4SE	AV-21RM4SN	AV-21RM4SP
MAIN PWB ASSY	VE-20161051	VE-20161048	VE-20161045	VE-20161041
TV RF System	B/G,D/K	←	B/G	B/G, L
Colour System (TV mode)	PAL, SECAM	←	PAL	PAL, SECAM
TV RF System	B/G,D/K	←	B/G	B/G, L

2.3 21-PIN EURO CONNECTOR (SCART) : EXT-1

Pin No.	Signal designation	Matching value	EXT-1
1	AUDIO R output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)
2	AUDIO R input	500mV(rms) (Nominal), High impedance	Used (R1)
3	AUDIO L output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)
4	AUDIO GND	---	Used
5	GND (B)	---	Used
6	AUDIO L input	500mV(rms) (Nominal), High impedance	Used (L1)
7	B input	$700mV_{(B-W)}$, 75 Ω	Used
8	FUNCTION SW (SLOW SW)	Low : 0V-3V High : 8V-12V, High impedance	Used
9	GND (G)	---	Used
10	SCL / T-V LINK	---	Not used
11	G input	700mV(B-W), 75 Ω	Used
12	SDA3	---	Not used
13	GND (R)	---	Used
14	GND (YS)	---	Used
15	R / C input	R : $700mV_{(B-W)}$, 75 Ω C : $300mV_{(P-P)}$, 75 Ω	Used (R)
16	Ys input (FAST SW)	Low : 0V-0.4V, 75 Ω High : 1V-3V, 75 Ω	Used
17	GND (VIDEO output)	---	Used
18	GND (VIDEO input)	---	Used
19	VIDEO output	$1V_{(P-P)}$ (Negative sync),75 Ω	Used (TV OUT)
20	VIDEO / Y input	$1V_{(P-P)}$ (Negative sync), 75 Ω	Used
21	COMMON GND	---	Used

(P-P= Peak to Peak, B-W= Blanking to white peak)



SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

(1) Unplug the power cord.
(2) Remove the 6 screws **[A]**.
(3) Withdraw the REAR COVER toward you.

3.1.2 REMOVING THE MAIN PWB

- Remove the REAR COVER.

(1) Slightly raise the both sides of the MAIN PWB by hand and withdraw the MAIN PWB backward.
(If necessary, take off the wire clamp, connectors etc.)

3.1.3 REMOVING THE SPEAKER

- Remove the REAR COVER.

(1) Remove the 4 screws **[B]**.
(2) Remove the speaker toward you.

3.1.4 REMOVING THE FRONT AV JACK PWB

- Remove the REAR COVER.
- Remove the MAIN PWB.

(1) Remove the 2 screws **[C]**.
(2) Remove the FRONT AV JACK PWB.

3.1.5 REMOVING THE HEADPHONE JACK PWB

- Remove the REAR COVER.
- Remove the MAIN PWB.

(1) Remove the 1 screw **[D]**.
(2) Remove the HEADPHONE JACK PWB.

3.1.6 CHECKING THE PW BOARD

- To check the back side of the PW Board.

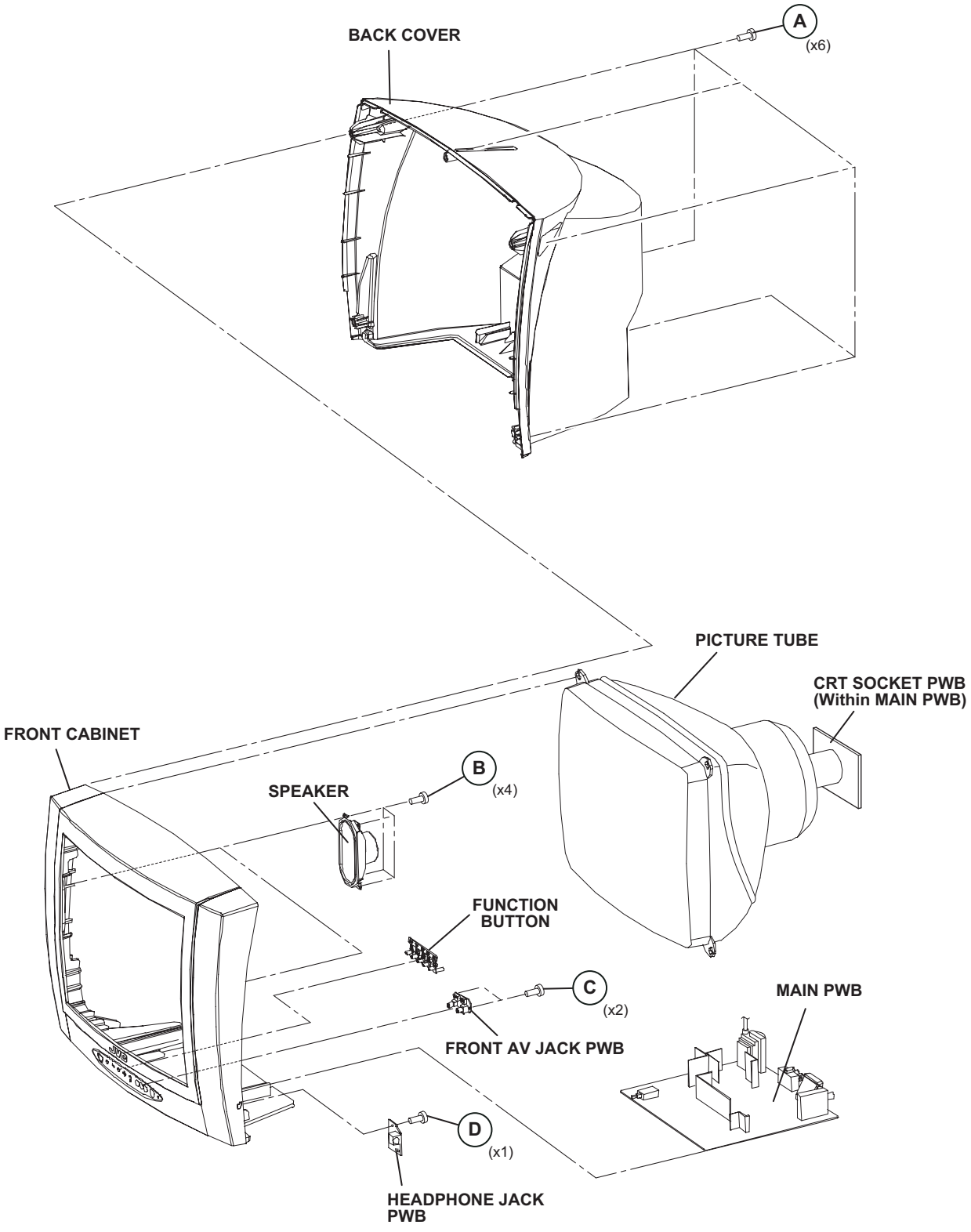
(1) Pull out the PW Board. (Refer to REMOVING THE MAIN PWB).
(2) Erect the PW Board vertically so that you can easily check the back side of the PWB.

CAUTION:

- When erecting the PW Board, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PWB.

3.1.7 WIRE CLAMPING AND CABLE TYING

(1) Be sure to clamp the wire.
(2) Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.


BACK COVER
A
(x6)
PICTURE TUBE
CRT SOCKET PWB
(Within MAIN PWB)
FRONT CABINET
B
(x4)
SPEAKER
FUNCTION
BUTTON
C
(x2)
MAIN PWB
FRONT AV JACK PWB
D
(x1)
HEADPHONE JACK
PWB

3.2 REPLACEMENT OF MEMORY IC

3.2.1 MEMORY IC

This model use a memory IC. This memory IC stores data for proper operation of the video and deflection circuits.
When replacing, be sure to use an IC containing this (initial value) data.

3.2.2 PROCEDURE FOR REPLACING MEMORY IC

PROCEDURE
1. Power off Switch the power off and unplug the power cord from the outlet
2. Replace IC. Be sure to use memory IC written with the initial data values.
3. Power on Plug the power cord into the outlet and switch the power on.
4. SERVICE MENU setting (1) Press [MENU] key and, while the displayed MENU screen, press [4], [7], [2], [5] key on the remote control unit or press [MUTING] key and [INFORMATION] key at the simultaneously. (2) The SERVICE MENU screen of Fig. 1 will be displayed. (3) Verify what to set in the SERVICE MENU, and set whatever is necessary (Fig.1). Refer to the SERVICE ADJUSTMENT for setting. (4) Press the [STANDARD] key to exit SERVICE MENU.
5. Receive channel setting Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.
6. User settings Check the user setting items according to after page. Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.

SERVICE MENU

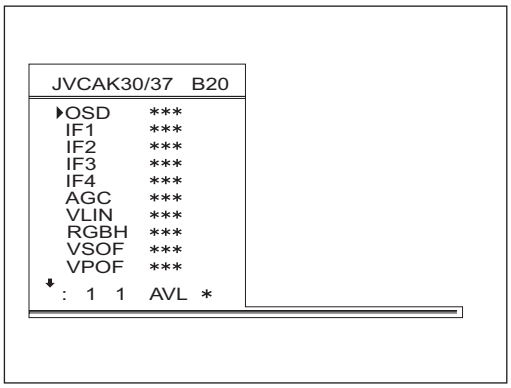


Fig.1

SERVICE MENU SELECT KEY

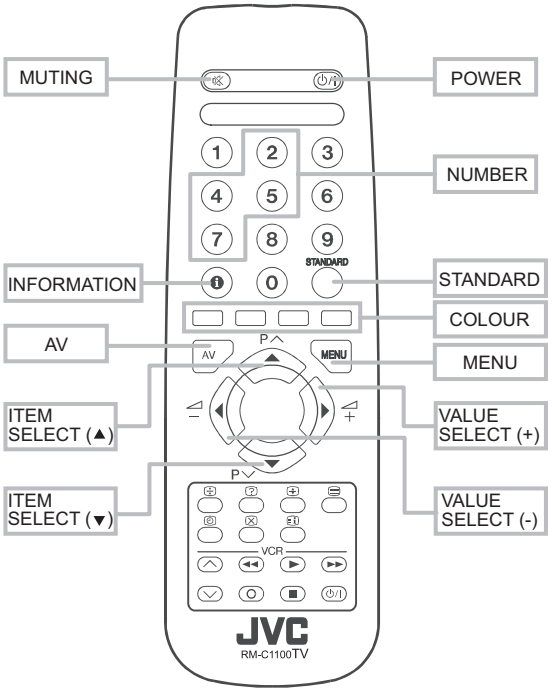


Fig.2

3.3 SETTING OF THE LAST MEMORY FOR SHIPMENT

3.3.1 USER SETTING VALUES

<table>
<tr><th>Setting item</th><th>Setting value</th><th>Setting item</th><th>Setting value</th></tr>
<tr><td colspan="2">PICTURE MENU</td><td colspan="2">INSTALL</td></tr>
<tr><td>BRIGHTNESS</td><td rowspan="5">These adjust are automatically restored when APS bit in service menu is set.
The procedure for setting APS bit is described below.</td><td>PROGRAMME</td><td rowspan="6">Refer to the INSTRUCTION BOOK</td></tr>
<tr><td>CONTRAST</td><td>BAND</td></tr>
<tr><td>COLOUR</td><td>CHANNEL</td></tr>
<tr><td>SHARPNESS</td><td>SEARCH</td></tr>
<tr><td>HUE(only NTSC)</td><td>FINE TUNING</td></tr>
<tr><td>MODE</td><td>AUTO</td><td>STORE</td></tr>
<tr><td colspan="2">SOUND MENU</td><td colspan="2">FEATURE MENU</td></tr>
<tr><td>BALANCE</td><td>Center</td><td>SLEEP TIMER</td><td>OFF</td></tr>
<tr><td>BASS</td><td>Center</td><td>CHILD LOCK</td><td>OFF</td></tr>
<tr><td>TREBLE</td><td>Center</td><td>LANGUAGE</td><td>ENGLISH</td></tr>
<tr><td>MODE</td><td>MONO</td><td>AV-1 OUTPUT</td><td>TV</td></tr>
<tr><td>EFFECT</td><td>OFF</td><td colspan="2"></td></tr>
</table>

3.3.2 SETTING APS BIT IN SERVICE MENU

(1) Press the [**INFORMATION**] and [**MUTING**] keys enter service menu in TV mode simultaneously. Service Menu will appear.
(2) Press the [▲]/[▼] key to select TX1(TELETEXT OPTION).
(3) Press the [**7**] key to set APS bit. (After this, bit 7 of TX1 will be "1")
(4) Press [**STANDARD**] key to exit service mode.

NOTE : DO NOT TURN OFF THE TV BY USING POWER BUTTON ON THE FRONT PANEL.

3.4 REPLACEMENT OF CHIP COMPONENT

3.4.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

3.4.2 SOLDERING IRON

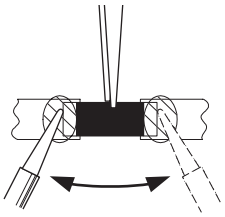
(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

3.4.3 REPLACEMENT STEPS

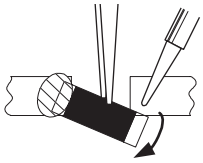
1. How to remove Chip parts

[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

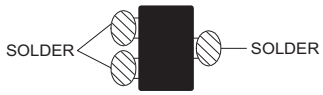


(2) Shift with the tweezers and remove the chip part.

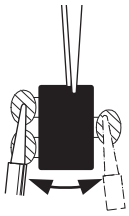


[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



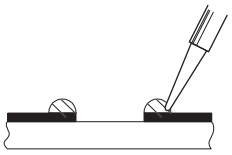
NOTE :

After removing the part, remove remaining solder from the pattern.

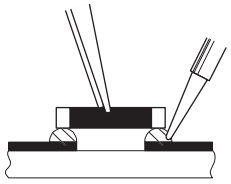
2. How to install Chip parts

[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

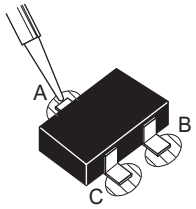


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

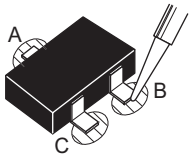


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) You can make the necessary adjustments for this unit with either the Remote Control Unit or with the adjustment tools and parts as given below.
(2) Adjustment with the Remote Control Unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
(3) Make sure that AC power is turned on correctly.
(4) Turn on the power for set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
(5) Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
(6) Never touch any adjustment parts which are not specified in the list for this adjustment - variable resistors, transformers, condensers, etc.
(7) Presetting before adjustment.
Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit:

Setting item	Setting value
BRIGHTNESS	Center
CONTRAST	
COLOUR	
SHARPNESS	

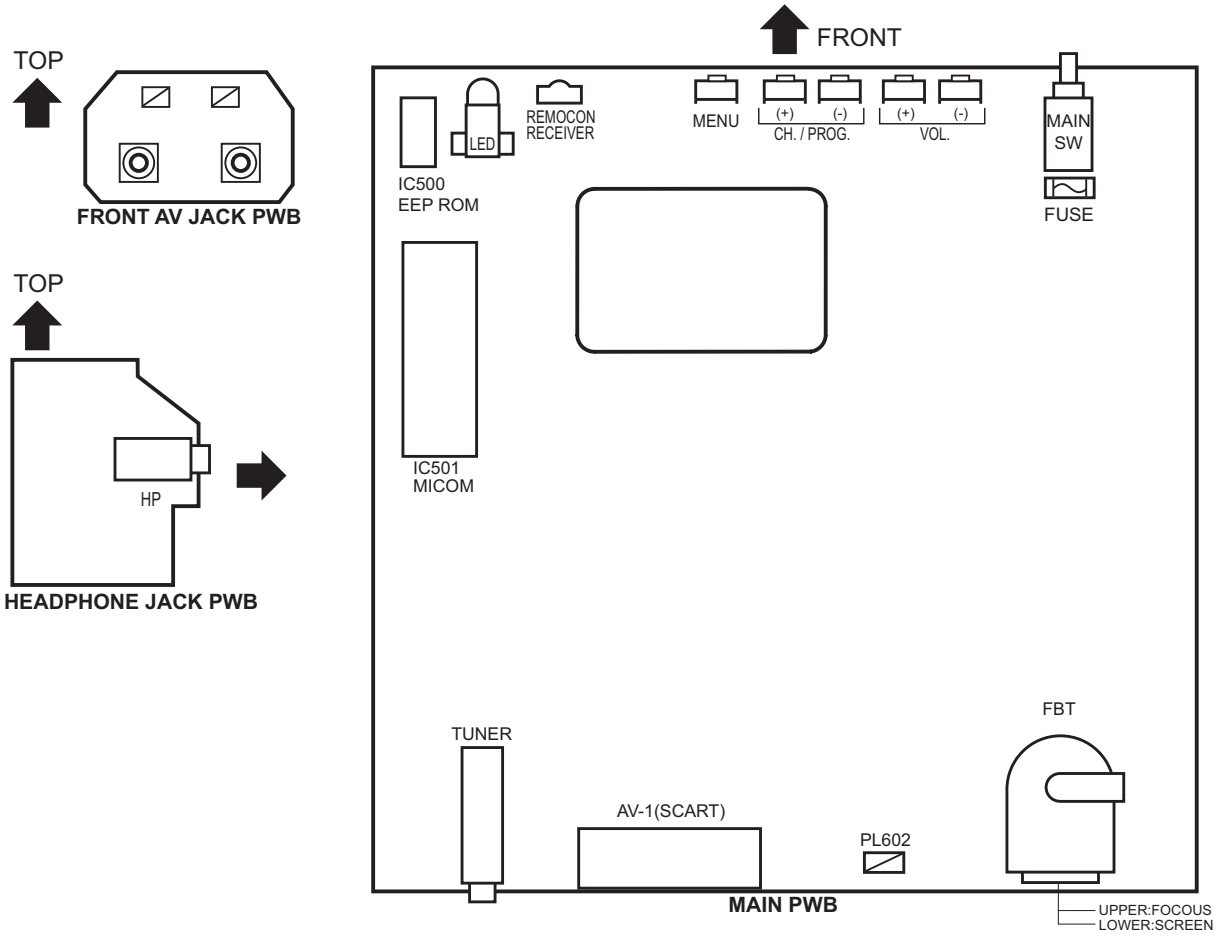
4.2 ADJUSTMENT EQUIPMENT

(1) DC voltmeter (or digital voltmeter)
(2) Signal generator (Pattern generator)
: [PAL / SECAM / NTSC]
(3) Remote control unit

4.3 ADJUSTMENT ITEM

- FOCUS ADJUSTMENT
- SCREEN ADJUSTMENT
- OSD HORIZONTAL POSITION ADJUSTMENT
- IF ADJUSTMENT
- AGC AUTOMATICALLY ADJUSTMENT
- DEFLECTION ADJUSTMENT
- WHITE BALANCE ADJUSTMENT

4.4 ADJUSTMENT LOCATIONS



4.5 BASIC OPERATION OF SERVICE MODE

4.5.1 HOW TO ENTER SERVICE MODE

(1) Press the MENU key.
(2) MENU screen will be displayed (fig.1).

MENU SCREEN

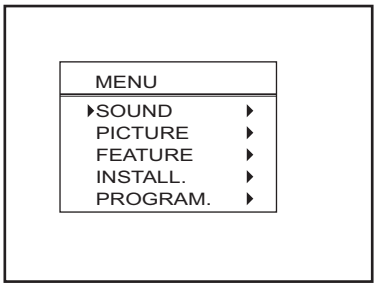


Fig.1

(3) While the MENU screen is displayed , press the [4], [7], [2], [5] key or [INFORMATION] key and [MUTING] key simultaneously.
(4) The SERVICE MENU screen will be displayed (fig.2).

SERVICE MENU

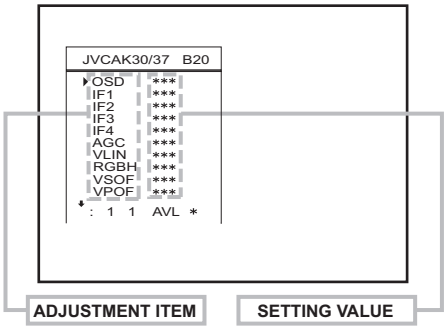


Fig.2

4.5.2 SELECTION OF ADJUSTMENT ITEMS

(1) Enter the SERVICE MODE.
(2) Press the [▲]/[▼] key to select the adjustment item.
(3) Press the [◀]/[▶] key to set the setting value.

4.5.3 HOW TO EXIT SERVICE MODE

(1) Press the [STANDARD] key.

4.5.4 HOW TO ENTER THE GEOMETRY MENU

• This model is built-in GEOMETRY MENU for geometry adjustment.
(1) Enter the SERVICE MODE.
(2) Press the [**GREEN**] key, geometry menu appears (Fig. 3).
(3) Press the [▲]/[▼] key and select the adjustment item.
(4) Press the [◀]/[▶] key and set the setting value.

GEOMETRY MENU

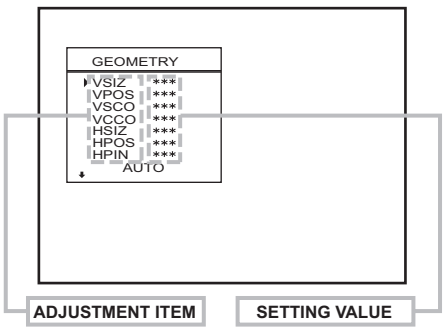
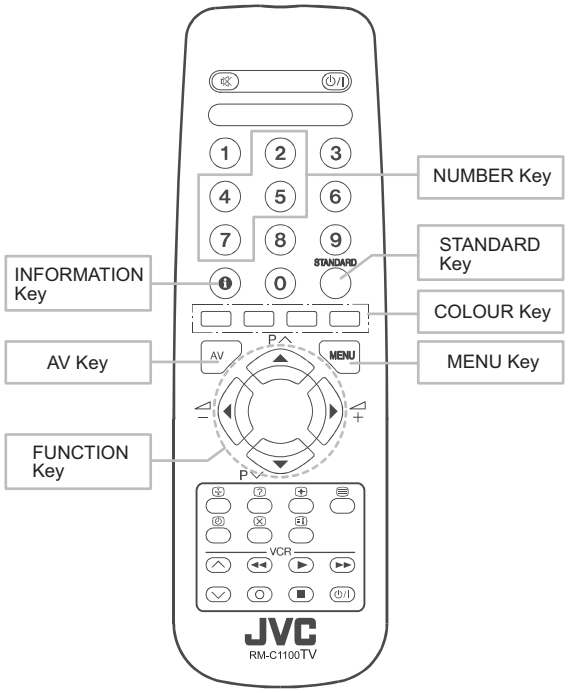


Fig.3

REMOTE CONTROL UNIT key NAME



FUNCTION OF COLOUR key

RED key :
It switches the AVL to ON or OFF mode on service menu.
AVL word is visible on service menu when AVL is on.

GREEN key :
It switches to GEOMETRY adjust menu. Geometry of the picture is adjusted in this menu.

YELLOW key :
It switches to VERTICAL SCAN DISABLE mode.
It is useful to adjust screen voltage.

BLUE key :
It is used to adjust AGC and IF automatically on service menu.

4.5.5 ADJUSTMENT ITEM

4.5.5.1 SERVICE MENU

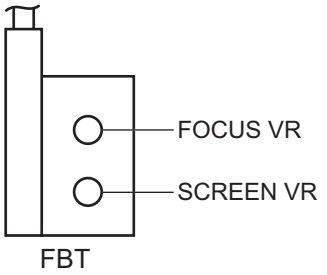
Adjustment item	Description
OSD	HORIZONTAL POSITION OF OSD
IF1	IF COARSE ADJUSTMENT
IF2	IF FINE ADJUSTMENT
IF3	IF COARSE ADJUSTMENT FOR L-PRIME
IF4	IF FINE ADJUSTMENT FOR L-PRIME
AGC	AUTOMATIC GAIN CONTROL
VLIN	VERTICAL LINEARITY
RGBH	RGB MODE HORIZONTAL SHIFT OFFSET
VSOF	VERTICAL SIZE OFFSET for 60Hz
VPOF	VERTICAL POSITION OFFSET for 60Hz
HSOF	HORIZONTAL SIZE OFFSET for 60Hz
HPOF	HORIZONTAL POSITION OFFSET for 60Hz
HTOF	HORIZONTAL TRAPEZOID OFFSET for 60Hz
WR	WHITE POINT ADJUSTMENT FOR RED
WG	WHITE POINT ADJUSTMENT FOR GREEN
WB	WHITE POINT ADJUSTMENT FOR BLUE
BR	BIAS FOR RED
BG	BIAS FOR GREEN
APR	AUTOMATIC RGB PEAK REGULATION THRESHOLD
BRI	BRIGHTNESS
CON	CONTRAST
COL	COLOUR
SHA	SHARP
HUE	HUE
VOL	VOLUME
WR-R	WHITE POINT ADJUSTMENT for RED (RGBmode)
WG-R	WHITE POINT ADJUSTMENT for GREEN (RGBmode)
WB-R	WHITE POINT ADJUSTMENT for BLUE (RGBmode)
FMP1	FM PRESCALER WHEN AVL IS OFF
NIP1	NICAM PRESCALER WHEN AVL IS OFF
SCP1	SCART PRESCALER WHEN AVL IS OFF
SEC1	SECAM PRESCALER WHEN AVL IS OFF
FMP2	FM PRESCALER WHEN AVL IS ON
NIP2	NICAM PRESCALER WHEN AVL IS ON
SCP2	SCART PRESCALER WHEN AVL IS ON
SEC2	SECAM PRESCALER WHEN AVL IS ON
F1H	HIGH BYTE OF VHF1-VHF3 CROSS-OVER FREQUENCY
F1L	LOW BYTE OF VHF1-VHF3 CROSS-OVER FREQUENCY
F2H	HIGH BYTE OF VHF3-UHF CROSS-OVER FREQUENCY
F2L	LOW BYTE OF VHF3-UHF CROSS-OVER FREQUENCY
BS1	BAND SWITCHING BYTE FOR VHF1
BS2	BAND SWITCHING BYTE FOR VHF3
BS3	BAND SWITCHING BYTE FOR UHF
CB	CONTROL BYTE
OP1	PERIPHERAL OPTIONS
OP2	RECEPTION STANDARD OPTIONS
OP3	VIDEO OPTIONS
OP4	TV FEATURES
OP5	CHANNEL TABLES
TX1	TELETEXT OPTIONS
GEOM	GEOMETRY OPTIONS
OP8	PIP PRESET CHANGE

4.5.5.2 GEOMETRY MENU

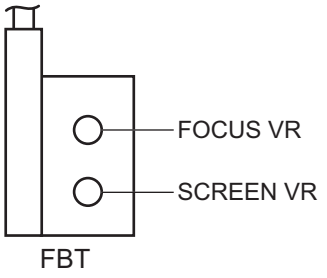
Adjustment item	Description
VSIZ	VERTICAL SIZE for 50Hz
VPOS	VERTICAL POSITION for 50Hz
VSCO	VERTICAL S-CORRECTION for 50Hz
VCCO	VERTICAL CORNER CORRECTION for 50Hz
HSIZ	HORIZONTAL SIZE for 50Hz
HPOS	HORIZONTAL POSITION for 50Hz
HPIN	HORIZONTAL PINCUSHION for 50Hz
HCCO	HORIZONTAL CORNER CORRECTION for 50H
HTRP	HORIZONTAL TRAPEZOID for 50Hz
VZSZ	VERTICAL ZOOM SIZE for 50Hz

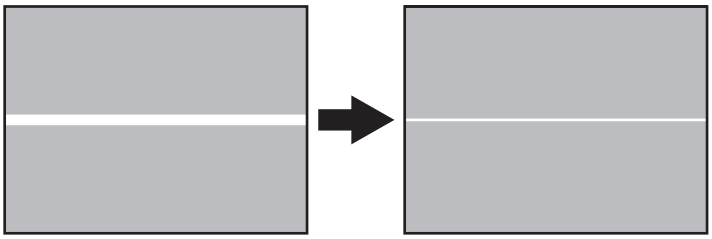
4.6 ADJUSTMENTS PROCEDURE

4.6.1 FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator Remote control unit		**FOCUS VR** [On the FBT]	(1) Receive a PAL crosshatch signal. (2) Adjust **FOCUS VR** on the FBT as thin as possible. 

4.6.2 SCREEN ADJUSTMENT

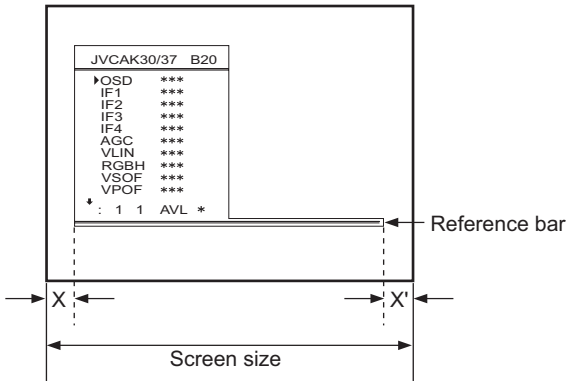
Item	Measuring instrument	Test point	Adjustment part	Description
SCREEN adjustment	Remote control unit		**SCREEN VR** [On the FBT]	(1) Enter the SERVICE MODE. (2) Press the [YELLOW] key to disable vertical scan. (3) Adjust SCREEN VR. on the FBT as thin as possible. (4) Press [YELLOW] key again to enable vertical scan. (5) Press [STANDARD] key to leave service menu. 



4.6.3 OSD ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
OSD HORIZONTAL POSITION adjustment	Remote control unit		**OSD**	(1) Enter the SERVICE MODE. (2) Select OSD with the [▲]/[▼] key. (3) Adjust the OSD horizontal position with the [◀]/[▶] key, which shifts the reference bar on the bottom of the SERVICE MENU horizontally, so that the OSD is positioned on the screen center. (**X=X'**)

SERVICE MENU SCREEN

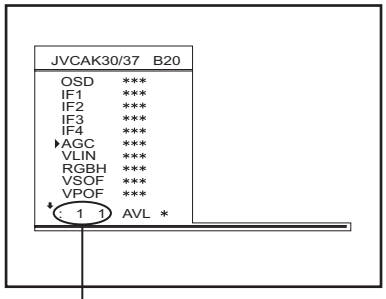


4.6.4 IF ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
IF adjustment	Remote control unit		**IF1** **IF2** **IF3** **IF4**	(1) Receive a PAL colour bar pattern. (2) Enter the SERVICE MODE. (3) Select IF 1 with the [▲]/[▼] key. (4) Press [BLUE] key during IF 1 is highlighted, IF 1 and IF 2 values are adjusted automatically by software. (5) If the standard is L-prime, IF 3 and IF 4 values are adjustment automatically when [BLUE] key is pressed during IF 1 is highlighted.

4.6.5 AGC AUTOMATICALLY ADJUSTMENT

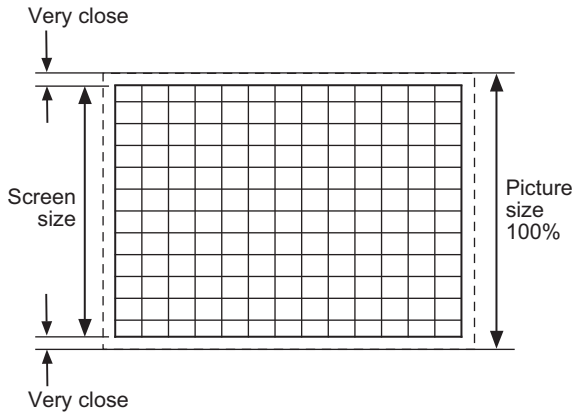
Item	Measuring instrument	Test point	Adjustment part	Description
AGC AUTOMATICALLY adjustment	Remote control unit		**AGC**	(1) Receive a 60dBμV RF signal level. (2) Enter the SERVICE MODE. (3) Select AGC with the [▲]/[▼] key. (4) Press [BLUE] key. (5) The adjustment will be done automatically by software. (6) See the AGC indicator on SERVICE MENU, it must be "1". (7) Check that picture is normal at 90dBμV signal level.

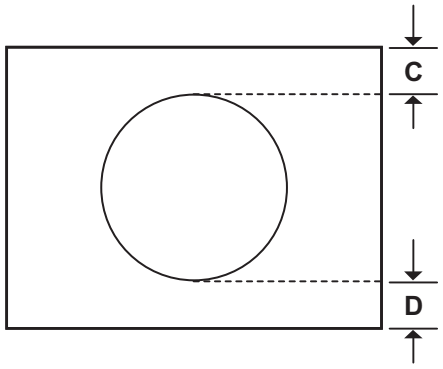
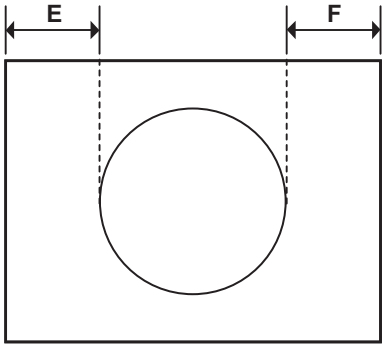
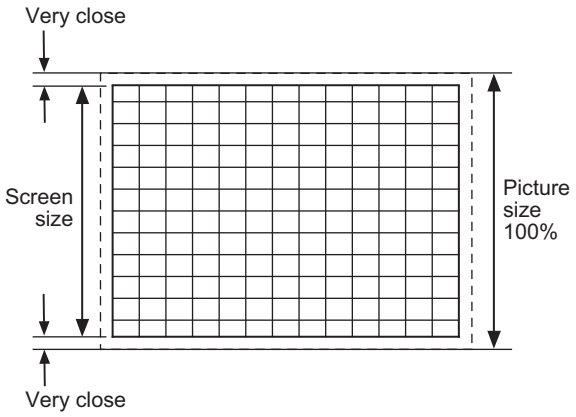


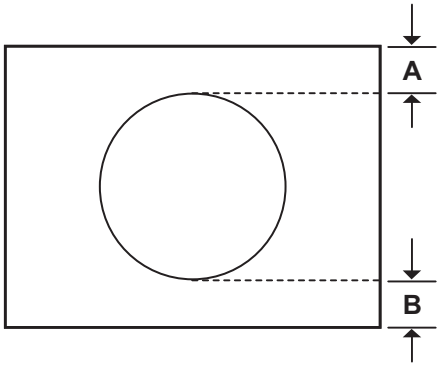
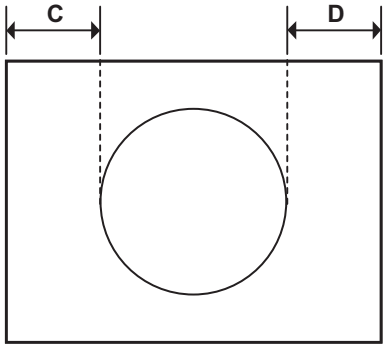
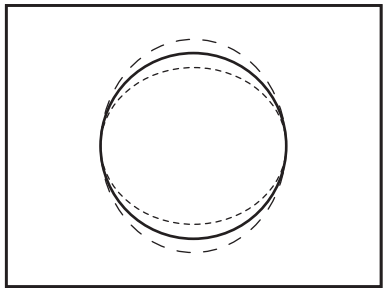
IF INDICATOR	AGC INDIXATOR	NON
:	1	1

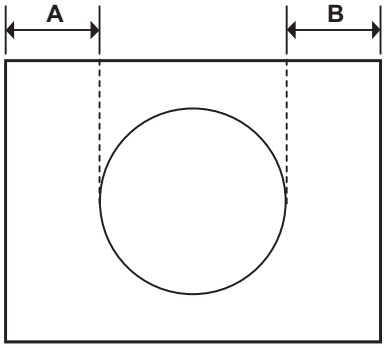
4.6.6 DEFLECTION ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
VERTICAL SIZE OFFSET (60Hz) adjustment	Signal generator Remote control unit		**VSOF**	(1) Receive a NTSC crosshatch pattern of vertical frequency 60Hz. (2) Enter the SERVICE MODE. (3) Select VSOF with the [▲]/[▼] key. (4) Adjust VSOF with the [◀]/[▶] key until the horizontal black lines on both the upper and lower part of the pattern become very close to the upper and lower horizontal sides of picture size and nearly about to disappear. (5) Check and readjust VSOF item if the adjustment becomes improper after some other geometric adjustments are done.



Item	Measuring instrument	Test point	Adjustment part	Description
VERTICAL POSITION OFFSET (60Hz) adjustment	Signal generator Remote control unit		**VPOF**	(1) Receive a NTSC circle pattern of vertical frequency 60Hz. (2) Enter the SERVICE MODE. (3) Select VPOF with the [▲]/[▼] key. (4) Adjust VPOF with the [◀]/[▶] key until the picture is vertically centered. (**C=D**) (5) Check and readjust vertical position item if the adjustment becomes improper after some other geometric adjustments are done.
				
HORIZONTAL POSITION OFFSET (60Hz) adjustment	Signal generator Remote control unit		**HPOF**	(1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Enter the SERVICE MODE. (3) Select HPOF with the [▲]/[▼] key. (4) Adjust HPOF with the [◀]/[▶] key until the circle pattern is horizontally centered. (**E=F**) (5) Check and readjust a horizontal position item if the adjustment becomes improper after some other geometric adjustments are done. Press the [MENU] key and memorize the set value.
				
VERTICAL SIZE (50Hz) adjustment	Signal generator Remote control unit		**VSIZ**	(1) Receive a PAL crosshatch pattern of vertical frequency 50Hz. (2) Enter the SERVICE MODE. (3) Press the [GREEN] key to enter the GEOMETRY MENU. (4) Select VSIZ (Vertical size) with the [▲]/[▼] key. (5) Adjust VSIZ with the [◀]/[▶] key until the horizontal black lines on both the upper and lower horizontal sides of picture size and nearly about to disappear. (6) Check and readjust VSIZ item if the adjustment becomes improper after some other geometric adjustments are done.
				

Item	Measuring instrument	Test point	Adjustment part	Description
VERTICAL POSITION (50Hz) adjustment	Signal generator Remote control unit		**VPOS**	(1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Enter the GEOMETRY MODE. (3) Select VPOS (Vertical position) with the [▲]/[▼] key. (4) Adjust VPOS with the [◀]/[▶] key until the circle pattern is vertically centered. (**A=B**) (5) Check and readjust VPOS item if the adjustment becomes improper after some other geometric adjustments are done.
				
HORIZONTAL POSITION (50Hz) adjustment	Signal generator Remote control unit		**HPOS**	(1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Enter the GEOMETRY MODE. (3) Select HPOS (Horizontal position) with the [▲]/[▼] key. (4) Adjust HPOS with the [◀]/[▶] key until the circle pattern is horizontally centered. (**C=D**) (5) Check and readjust HPOS item if the adjustment becomes improper after some other geometric adjustments are done.
				
VERTICAL LINEARITY adjustment	Signal generator Remote control unit		**VLIN**	(1) Receive a PAL circle pattern . (2) Enter the SERVICE MODE. (3) Select VLIN with the [▲]/[▼] key. (4) Adjust VLIN with the [◀]/[▶] key until circle as round as possible.
				

Item	Measuring instrument	Test point	Adjustment part	Description
RGB MODE HORIZONTAL SHIFT adjustment	Signal generator Remote control unit		**RGBH**	(1) Input R/G/B circle pattern signal via video input terminal. (2) Press [AV] key, force the TV to RGB mode. (3) Enter the SERVICE MODE. (4) Select RGBH with the [▲]/[▼] key. (5) Adjust RGBH with the [◀]/[▶] key until the circle pattern is horizontally centered. (**A=B**) (6) Check and readjust RGBH item if the adjustment becomes improper after some other geometric adjustments are done.
				

4.6.7 WHITE BALANCE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (Low light) adjustment	Signal generator Remote control unit		**WR** **WG** **WB**	(1) Receive a black & white signal (colour off). (2) Enter the SERVICE MODE. (3) Select WR / WG / WB with the [▲]/[▼] key respectively. (4) Adjust WR / WG / WB with the [◀]/[▶] key, respectively, until the white part turns to pure white without any other colour.
WHITE BALANCE (High light) adjustment	Signal generator Remote control unit		**BR** **BG**	(1) Receive a black & white signal (colour off). (2) Enter the SERVICE MODE. (3) Select BR / BG with the [▲]/[▼] key respectively. (4) Adjust BR / BG with the [◀]/[▶] key, respectively until the white part of screen make white colour.

SECTION 5
TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.

JVC
Victor Company of Japan, Limited
AV & MULTIMEDIA COMPANY VIDEO DISPLAY CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.YA080)

Printed in Japan
VPT

AV-20RM4SE, AV-21RM4SE
AV-21RM4SN, AV-21RM4SP

STANDARD CIRCUIT DIAGRAM

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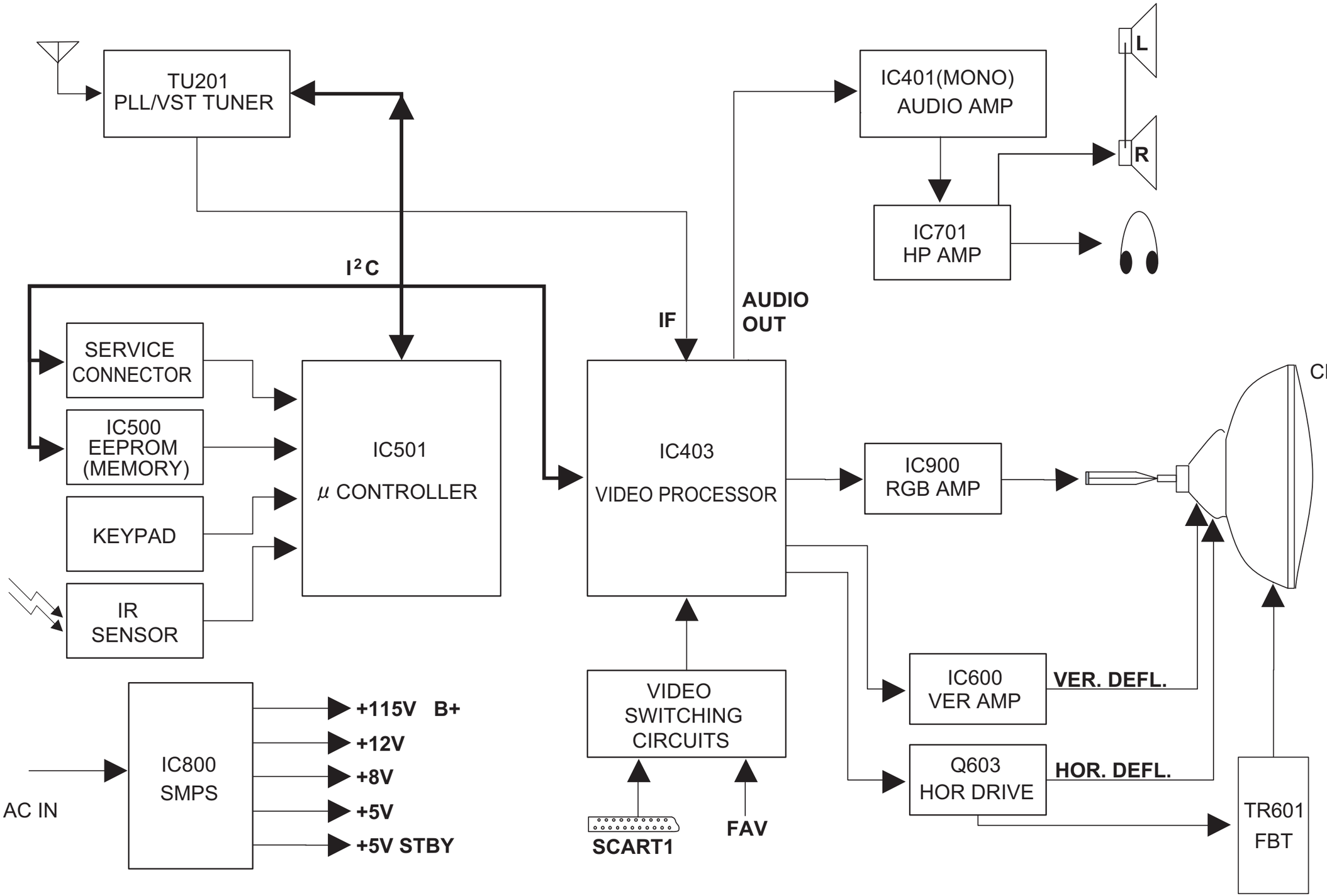
USING P.W. BOARD

P.W.B ASS'Y name	AV-20RM4SE	AV-21RM4SE	AV-21RM4SN	AV-21RM4SP
MAIN PWB	VE-20161051	VE-20161048	VE-20161045	VE-20161041
FRONT AV JACK PWB	VE-20166161	←	←	←
HEADPHONE JACK PWB	VE-20165426	←	←	←

BLOCK DIAGRAM

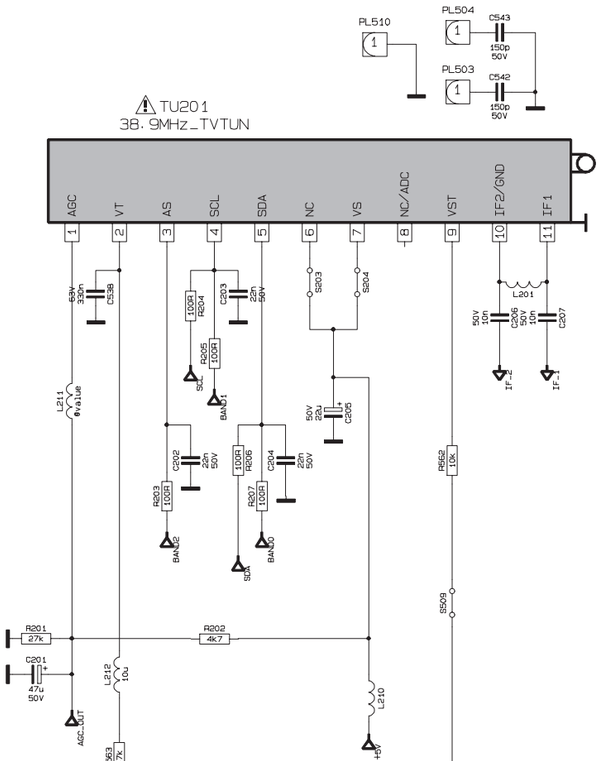


CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/7)

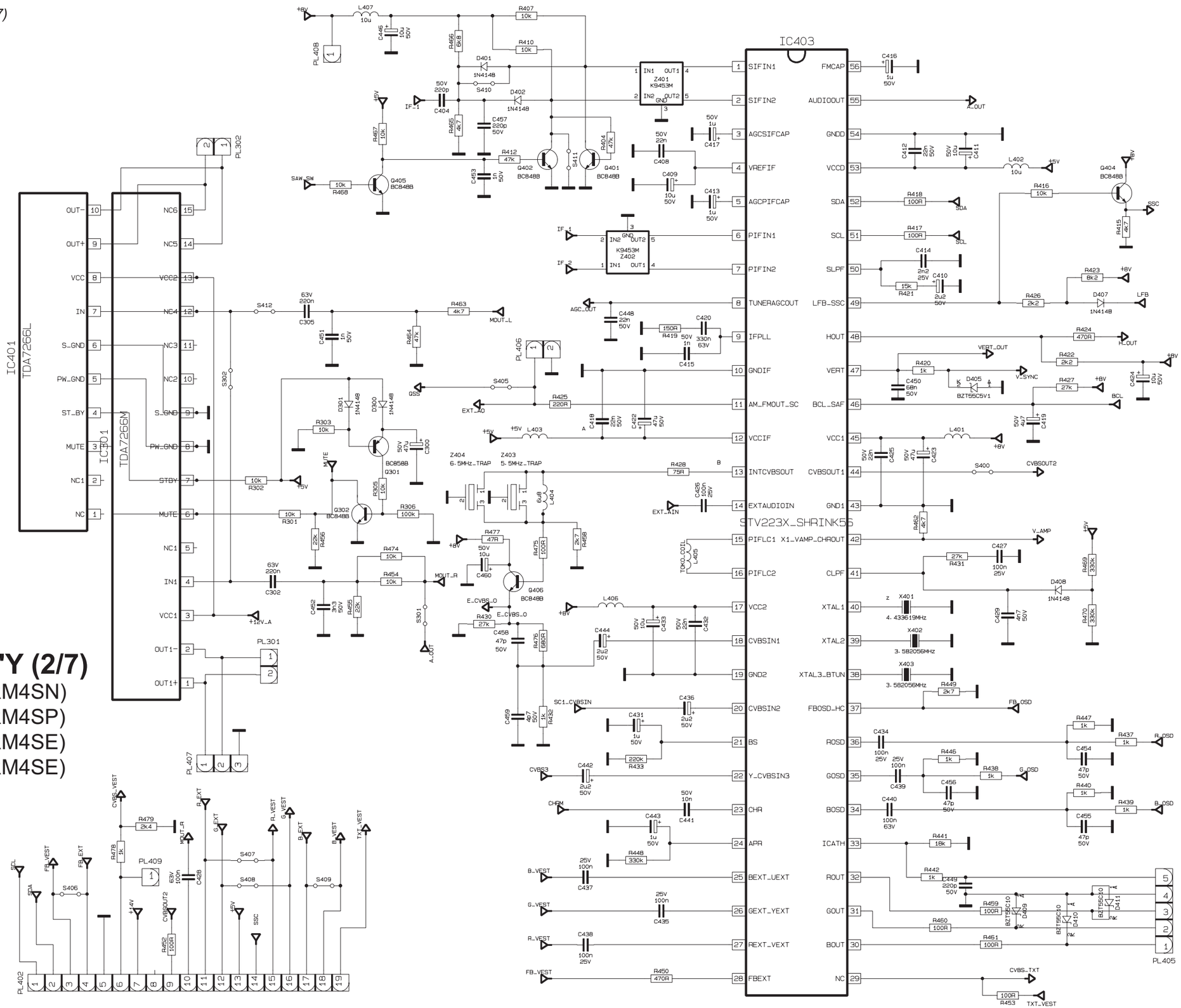
MAIN PWB ASS'Y (1/7)

VE-20161045 (AV-21RM4SN)
VE-20161041 (AV-21RM4SP)
VE-20161048 (AV-21RM4SE)
VE-20161051 (AV-20RM4SE)

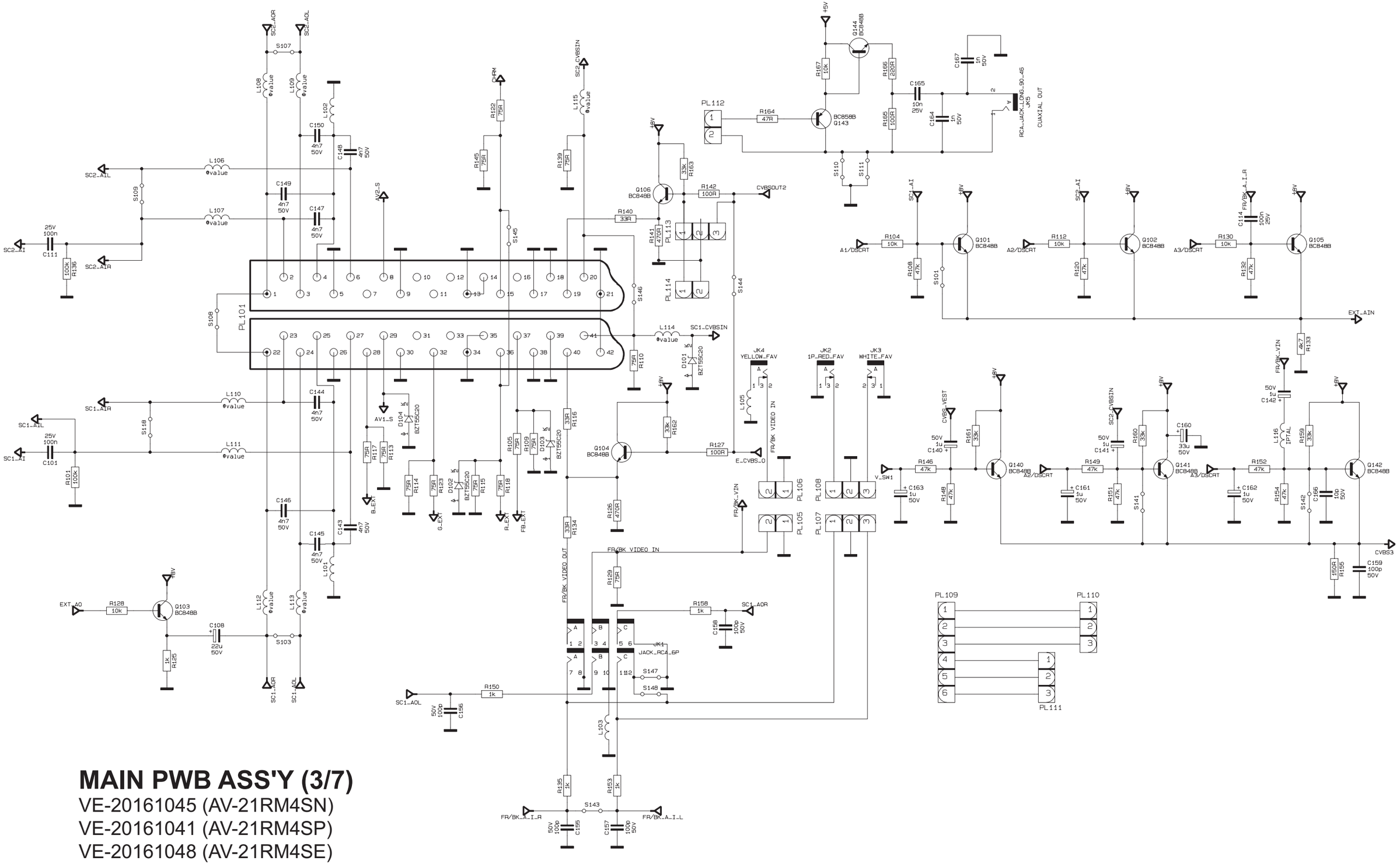


MAIN PWB ASS'Y (2/7)

VE-20161045 (AV-21RM4SN)
VE-20161041 (AV-21RM4SP)
VE-20161048 (AV-21RM4SE)
VE-20161051 (AV-20RM4SE)



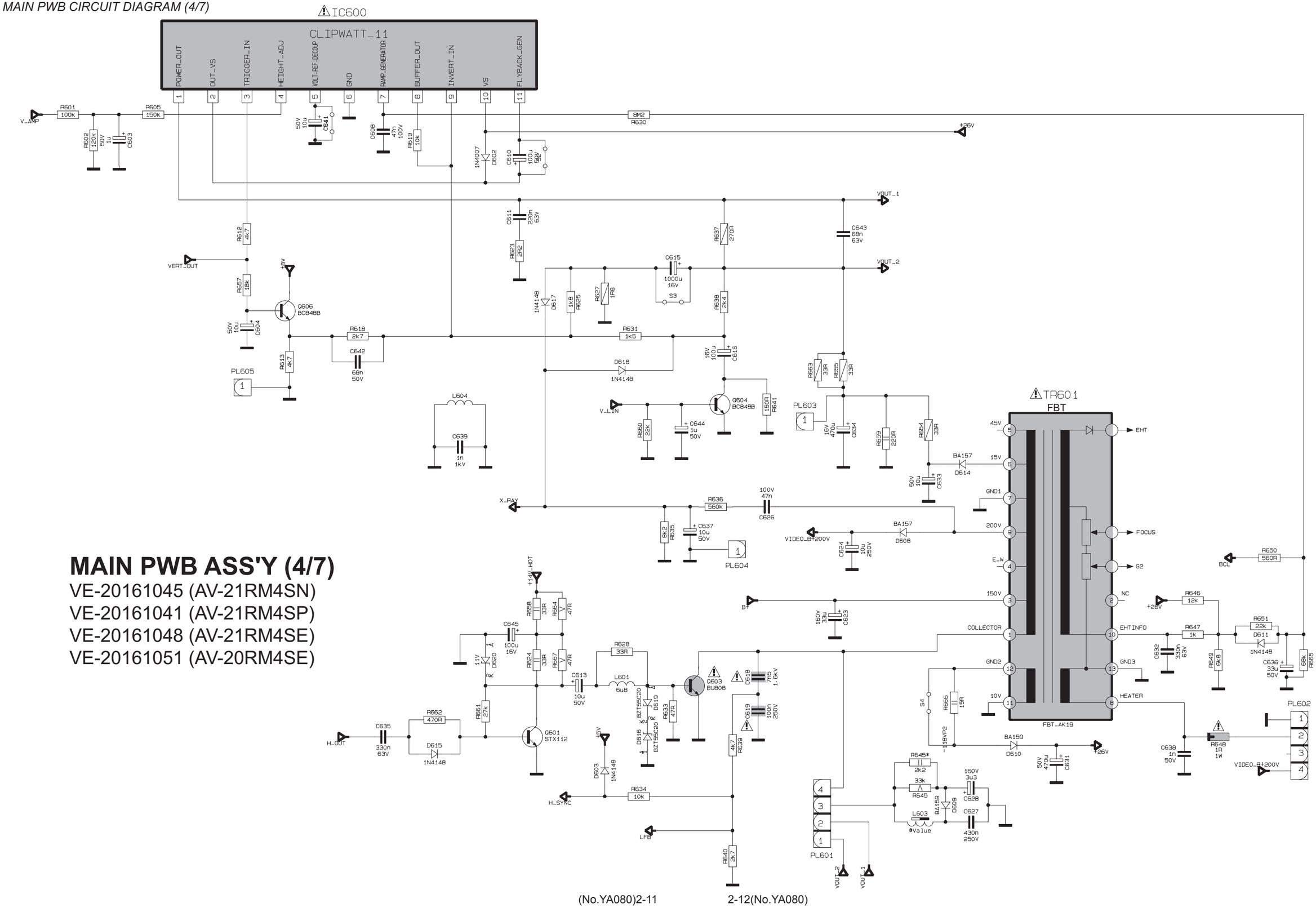
MAIN PWB CIRCUIT DIAGRAM (3/7)



MAIN PWB ASS'Y (3/7)

VE-20161045 (AV-21RM4SN)
VE-20161041 (AV-21RM4SP)
VE-20161048 (AV-21RM4SE)
VE-20161051 (AV-20RM4SE)

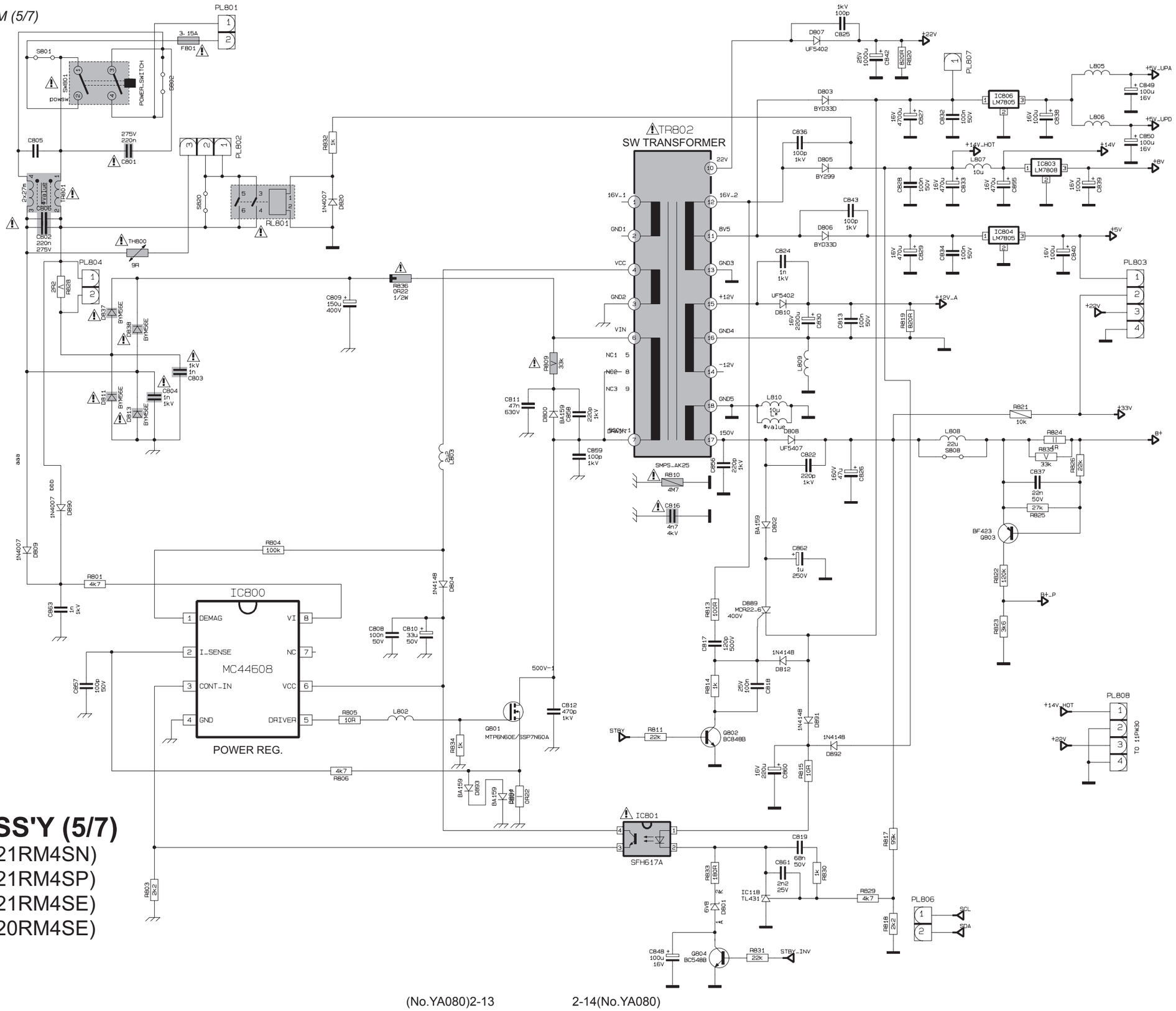
MAIN PWB CIRCUIT DIAGRAM (4/7)



MAIN PWB ASS'Y (4/7)

VE-20161045 (AV-21RM4SN)
VE-20161041 (AV-21RM4SP)
VE-20161048 (AV-21RM4SE)
VE-20161051 (AV-20RM4SE)

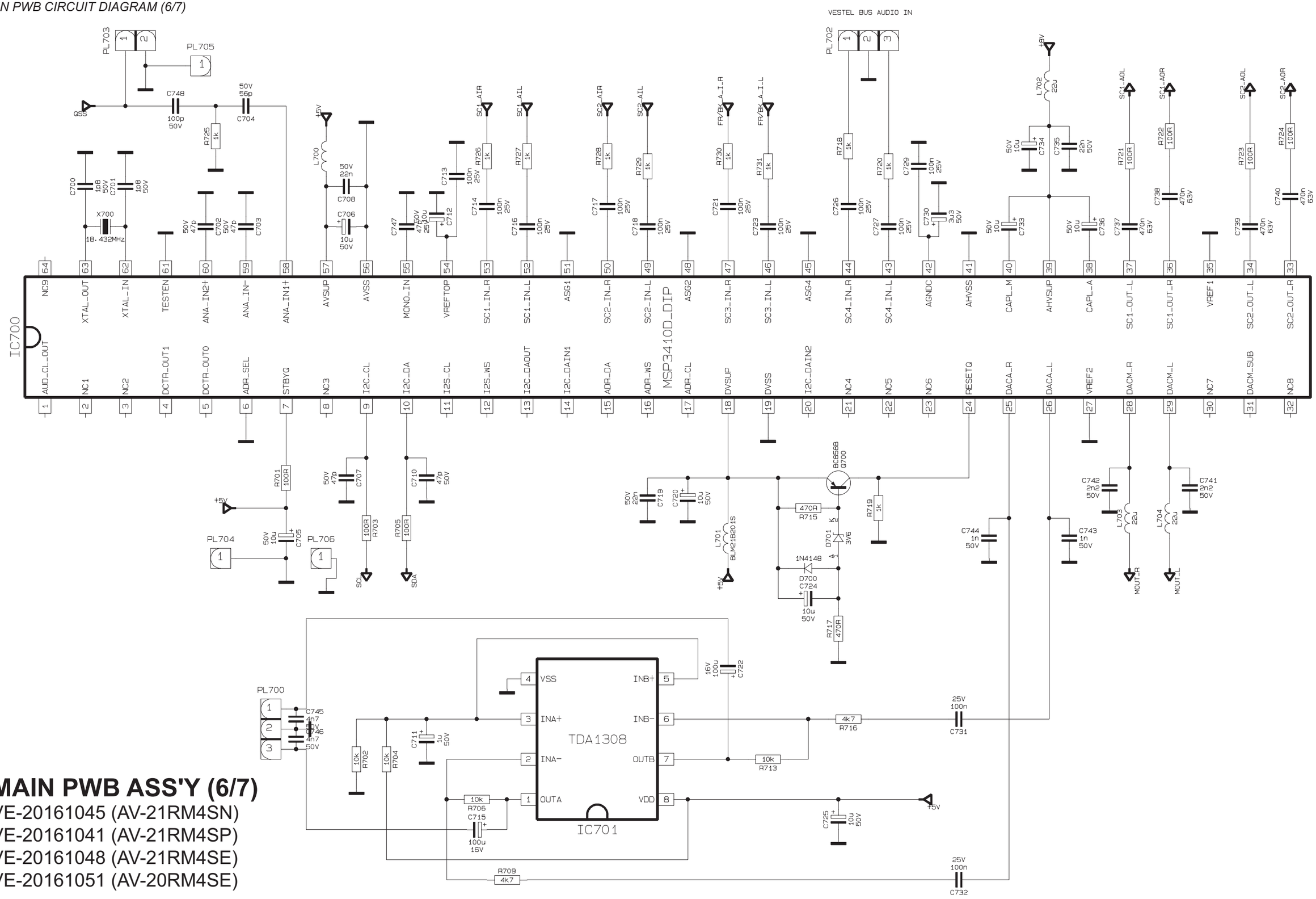
MAIN PWB CIRCUIT DIAGRAM (5/7)



MAIN PWB ASS'Y (5/7)

VE-20161045 (AV-21RM4SN)
VE-20161041 (AV-21RM4SP)
VE-20161048 (AV-21RM4SE)
VE-20161051 (AV-20RM4SE)

MAIN PWB CIRCUIT DIAGRAM (6/7)

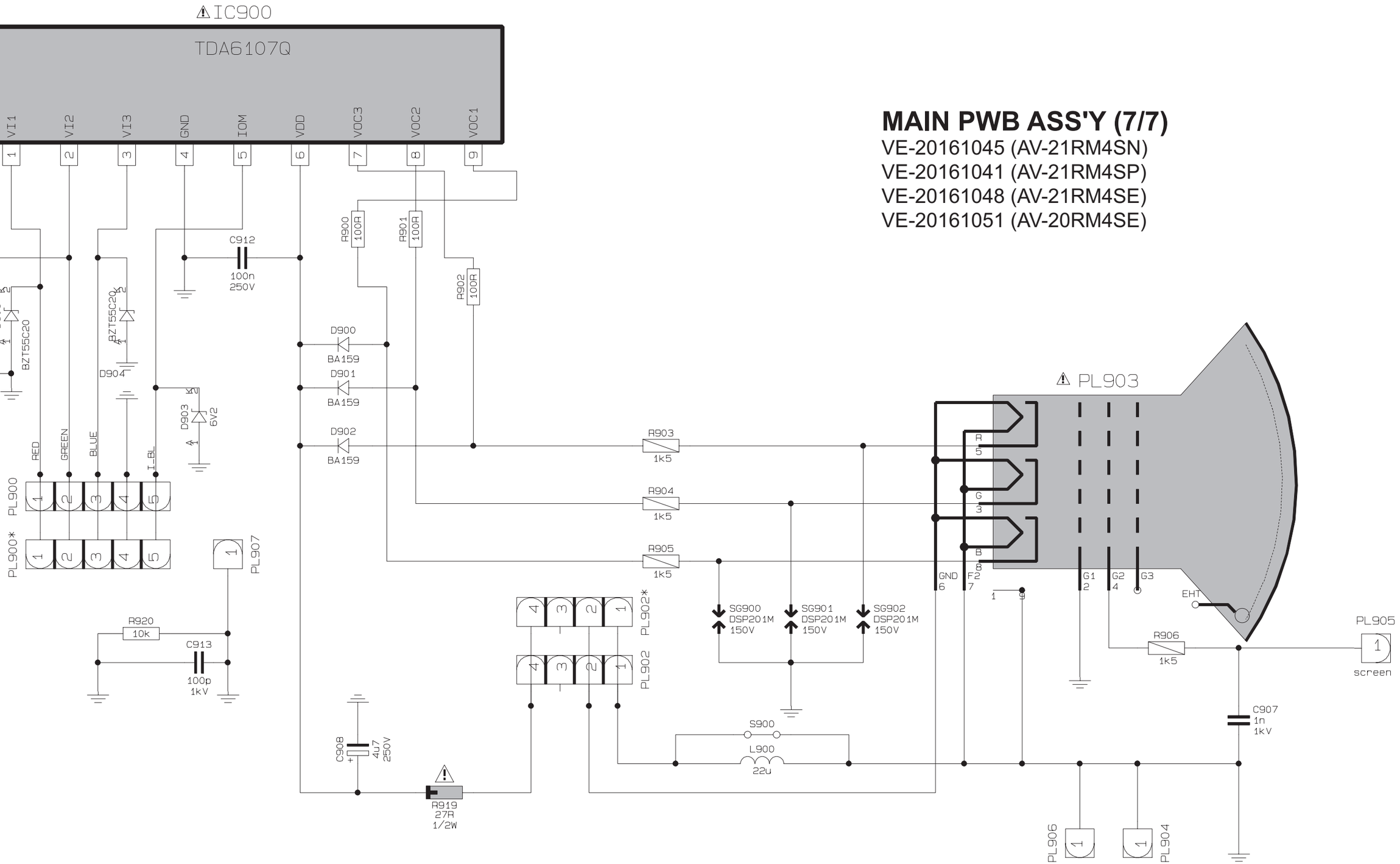


MAIN PWB ASS'Y (6/7)

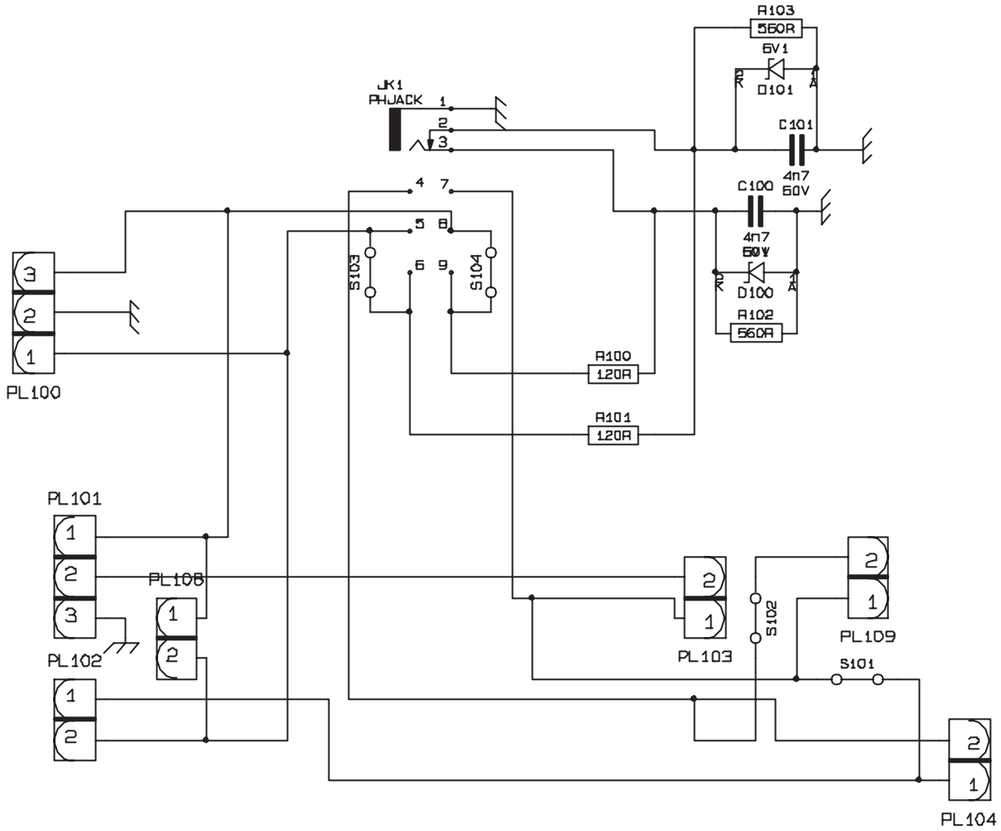
VE-20161045 (AV-21RM4SN)
VE-20161041 (AV-21RM4SP)
VE-20161048 (AV-21RM4SE)
VE-20161051 (AV-20RM4SE)

MAIN PWB ASS'Y (7/7)

VE-20161045 (AV-21RM4SN)
VE-20161041 (AV-21RM4SP)
VE-20161048 (AV-21RM4SE)
VE-20161051 (AV-20RM4SE)

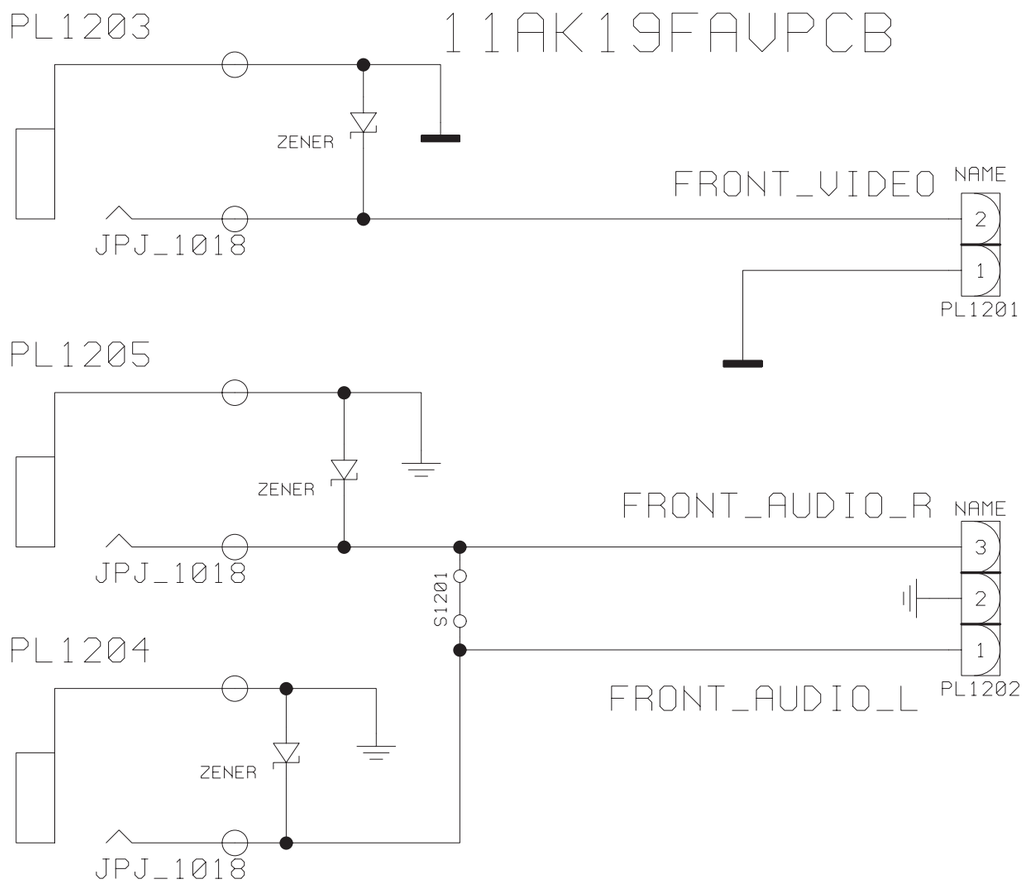


HEADPHONE JACK PWB CIRCUIT DIAGRAM



HEADPHONE JACK PWB
VE-20165426

FRONT AV JACK PWB CIRCUIT DIAGRAM



FRONT AV JACK PWB
VE-20166161

PATTERN DIAGRAMS

MAIN PWB PATTERN

FRONT

(⊥)

(⏚)

DANGER! LIVE PART

LIVE

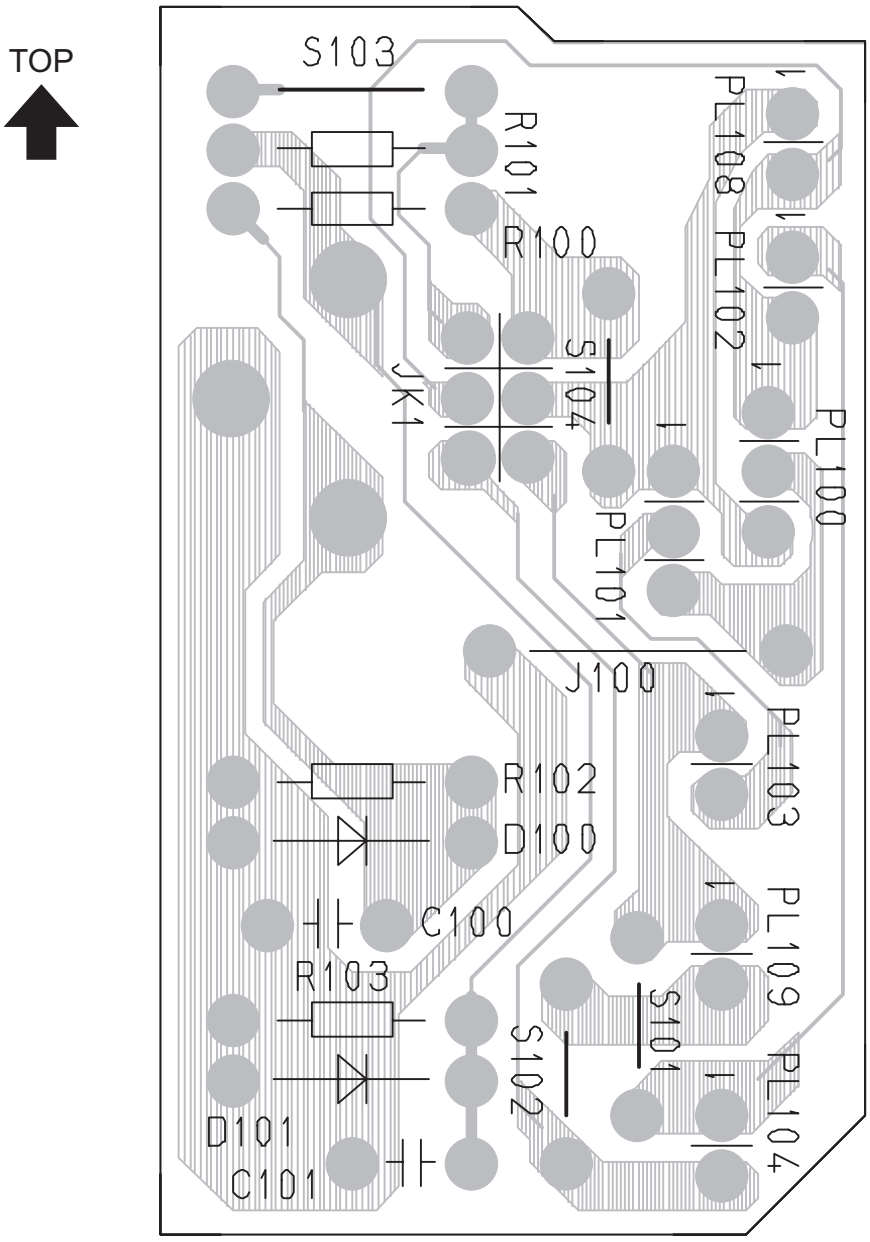
ISOLATED

CRT SOCKET PWB PATTERN
(Within MAIN PWB)

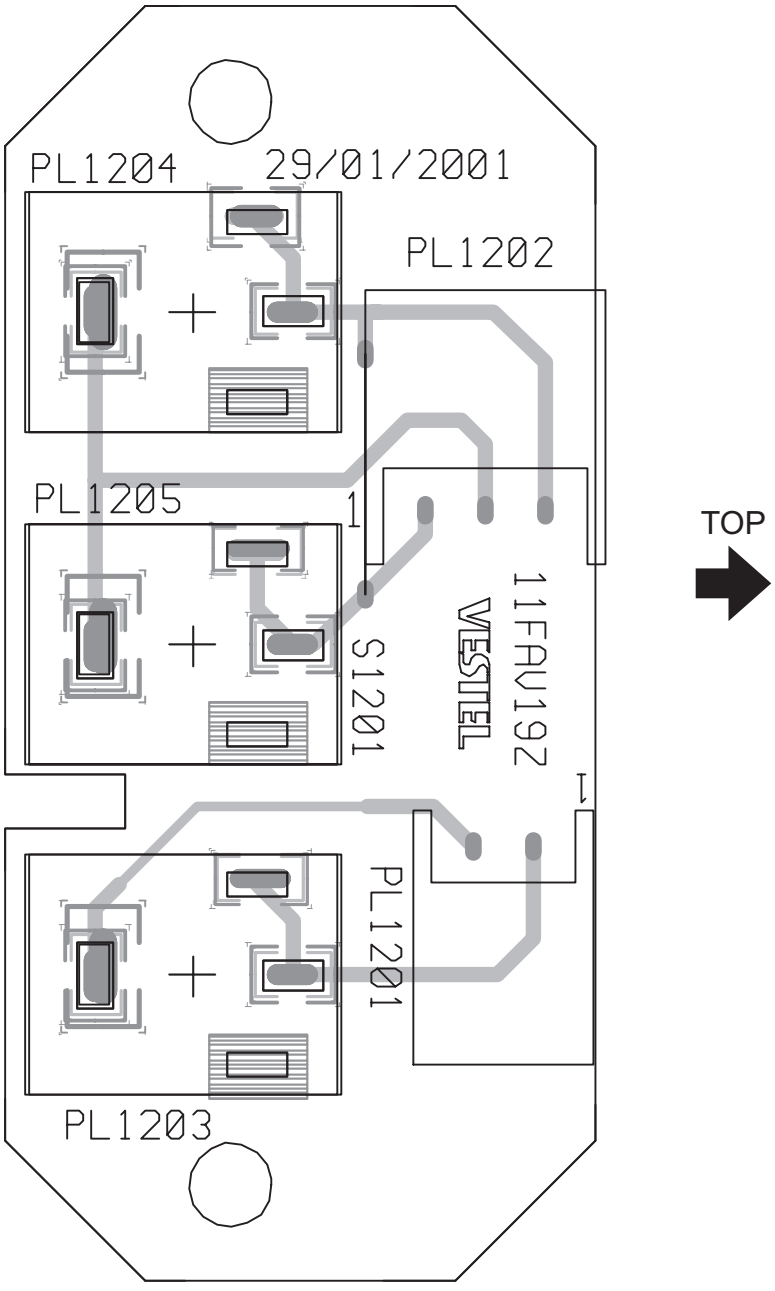
TOP

(⏚)

HEADPHONE JACK PWB PATTERN



FRONT AV JACK PWB PATTERN



PARTS LIST

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USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y name	AV-20RM4SE	AV-21RM4SE	AV-21RM4SN	AV-21RM4SP
MAIN P.W.B (with CRT SOCKET P.W.B)	VE-20161051	VE-20161048	VE-20161045	VE-20161041
FRONT AV JACK P.W.B	VE-20166161	←	←	←
HEADPHONE JACK P.W.B	VE-20165426	←	←	←
REMOTE CONTROL UNIT	VE-30017763 (RM-C1100)	←	←	←

EXPLODED VIEW PARTS LIST

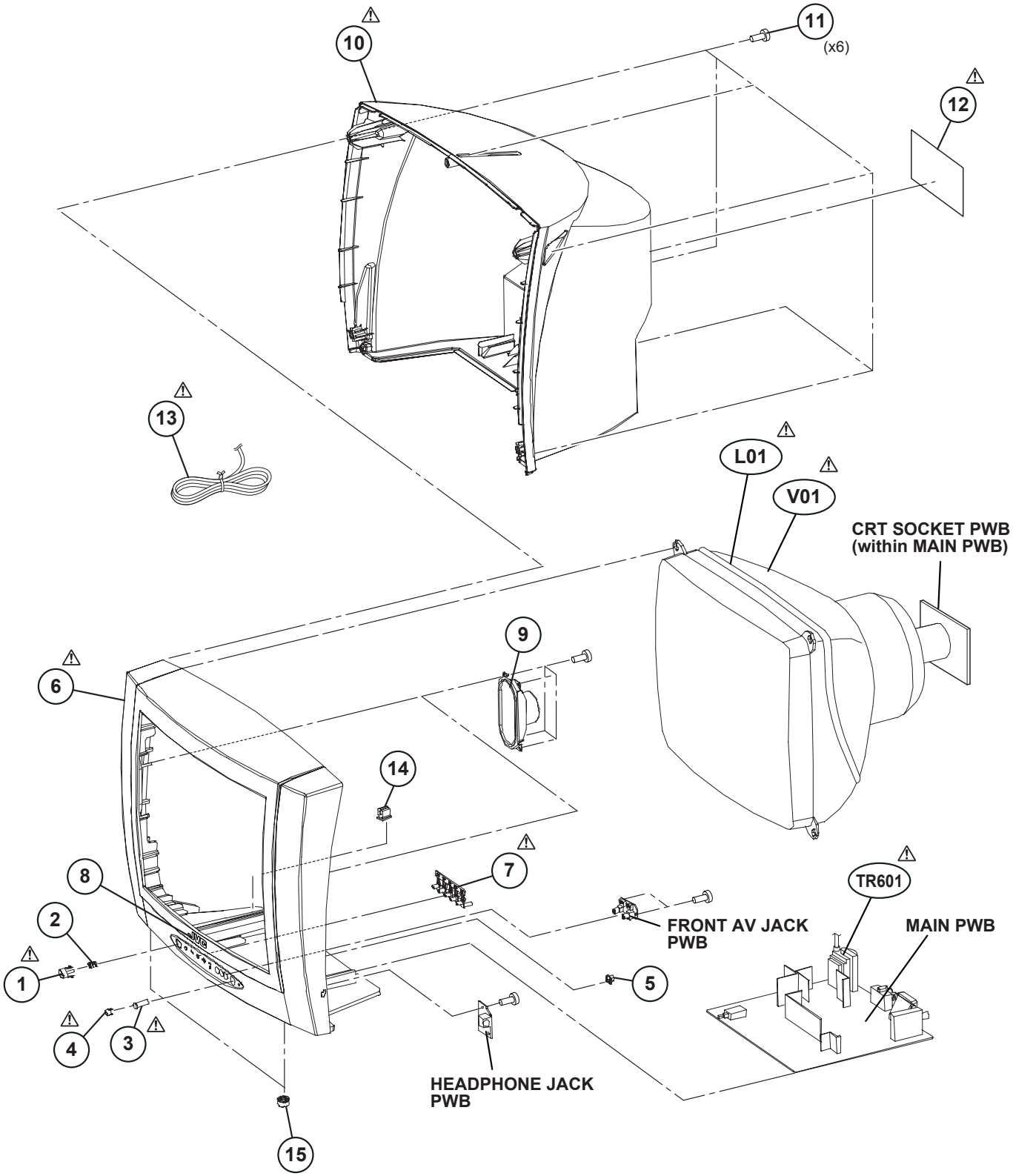
[AV-20RM4SE]

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	VE-30002748	PICTURE TUBE(ITC)	Inc. DY, PC MAGNET	
⚠	L01	VE-30002119	DEG COIL&EARTH CB.		
⚠	TR601	VE-30017788	TRF FBT	within MAIN PWB	
⚠	1	VE-20160402	BUTTON ON/OFF		
	2	VE-35000013	SPRING ON/OFF SWITCH		
⚠	3	VE-20004338	LENS PRE-AMP		
⚠	4	VE-20167108	LENS		
	5	VE-20056446	LENS LED		
⚠	6	VE-20165665	FRONT CABINET		
⚠	7	VE-20160401	BUTTON FUNCTION		
	8	VE-40013593	LOGO JVC		
	9	VE-30026953	SPEAKER	(x2) 16Ω 10W (57x126MM)	
⚠	10	VE-20160396	BACK COVER		
	11	VE-35010702	SCREW (4x20)	(x6)	
⚠	12	VE-20165670	LABEL		
⚠	13	VE-30029498	POWERCORD	2.2MT	
	14	VE-20004520	CABLE HOLDER		
	15	VE-20004646	FOOT RUBBER	(x2)	

[AV-21RM4SE , AV-21RM4SN , AV-21RM4SP]

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	VE-30002749	PICTURE TUBE (ITC)	Inc. DY, PC MAGNET	
⚠	L01	VE-30002124	DEG COIL&EARTH CB.		
⚠	TR601	VE-30017788	TRF FBT	within MAIN PWB	
⚠	1	VE-20160402	BUTTON ON/OFF		
	2	VE-35000013	SPRING ON/OFF SWITCH		
⚠	3	VE-20053831	LENS PRE-AMP		
⚠	4	VE-20167108	LENS		
	5	VE-20056446	LENS LED		
⚠	6	VE-20165671	FRONT CABINET		
⚠	7	VE-20160401	BUTTON FUNCTION		
	8	VE-40013593	LOGO JVC		
	9	VE-30026953	SPEAKER	(x2) 16Ω 10W (57x126MM)	
⚠	10	VE-20160396	BACK COVER		
	11	VE-35010702	SCREW (4x20)	(x6)	
⚠	12	VE-20165678	LABEL		AV-21RM4SN
⚠	12	VE-20165569	LABEL		AV-21RM4SP
⚠	12	VE-20165675	LABEL		AV-21RM4SE
⚠	13	VE-30029498	POWER CORD	2.2MT	
	14	VE-20004520	CABLE HOLDER		
	15	VE-20004646	FOOT RUBBER	(x2)	

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST [AV-20RM4SE]

MAIN P.W. BOARD ASS'Y (VE-20161051)

⚠Ref No.	Part No.	Part Name	Description Local
IC118	VE-30023137	IC	
IC401	VE-30013986	IC	
IC403	VE-30026922	IC	
IC500	VE-20161050	IC (MEMORY)	
IC501	VE-20091454	IC (MICOM)	
IC502	VE-30001670	PREAMPLIFIER	
⚠IC600	VE-30015306	IC	
IC800	VE-30011968	IC	
⚠IC801	VE-30015087	IC	
IC803	VE-30001500	IC	
IC804	VE-30001622	IC	
IC806	VE-30014346	IC	
⚠IC900	VE-30025172	IC	
Q101	VE-30001457	TRANSISTOR	
Q103	VE-30001457	TRANSISTOR	
Q104	VE-30001457	TRANSISTOR	
Q105	VE-30001457	TRANSISTOR	
Q301	VE-30001458	TRANSISTOR	
Q302	VE-30001457	TRANSISTOR	
Q406	VE-30001457	TRANSISTOR	
Q503	VE-30001457	TRANSISTOR	
Q504	VE-30001458	TRANSISTOR	
Q601	VE-30013656	TRANSISTOR POWER	
⚠Q603	VE-30001448	TRANSISTOR	H.OUT
Q604	VE-30001457	TRANSISTOR	
Q606	VE-30001457	TRANSISTOR	
Q801	VE-30001386	TRANSISTOR	
Q802	VE-30001457	TRANSISTOR	
Q804	VE-30001454	TRANSISTOR	
D101	VE-30007760	DIODE ZENER	
D102	VE-30007760	DIODE ZENER	
D103	VE-30007760	DIODE ZENER	
D104	VE-30007762	DIODE ZENER	
D106	VE-30001377	DIODE ZENER	
D300	VE-30001285	DIODE	
D301	VE-30001285	DIODE	
D405	VE-30007763	DIODE ZENER	
D407	VE-30001284	DIODE	
D408	VE-30001285	DIODE	
D409	VE-30007760	DIODE ZENER	
D410	VE-30007760	DIODE ZENER	
D411	VE-30007760	DIODE ZENER	
D501	VE-30001285	DIODE	
D505	VE-30001285	DIODE	
D506	VE-30001284	DIODE	
D509	VE-30001279	LED	
D512	VE-30001285	DIODE	
D513	VE-30001339	DIODE ZENER	
D602	VE-30001329	DIODE	
D603	VE-30001285	DIODE	
D608	VE-30001318	DIODE	
D609	VE-30001318	DIODE	
D610	VE-30001318	DIODE	
D611	VE-30001285	DIODE	
D614	VE-30001318	DIODE	
D615	VE-30001285	DIODE	
D616	VE-30009699	DIODE ZENER	
D619	VE-30009699	DIODE ZENER	
D620	VE-30003722	DIODE ZENER	
D800	VE-30001318	DIODE	
D801	VE-30001347	DIODE ZENER	
D802	VE-30001318	DIODE	
D803	VE-30001315	DIODE	
D804	VE-30001285	DIODE	
D805	VE-30001315	DIODE	
D806	VE-30001315	DIODE	
D808	VE-30007681	DIODE	
D809	VE-30001329	DIODE	
D810	VE-30009366	DIODE	
⚠D811	VE-30001329	DIODE	
D812	VE-30001285	DIODE	
⚠D813	VE-30001329	DIODE	
⚠D837	VE-30001329	DIODE	
⚠D838	VE-30001329	DIODE	
D889	VE-30001384	TRANSISTOR	
D890	VE-30001329	DIODE	
D893	VE-30001329	DIODE	
D894	VE-30001329	DIODE	
D900	VE-30001318	DIODE	
D901	VE-30001318	DIODE	
D902	VE-30001318	DIODE	
D903	VE-30001344	DIODE ZENER	
C101	VE-30016654	CAP SMD	100NF 16V K R
C108	VE-30000371	CAP EL	22UF 50V M
C114	VE-30016654	CAP SMD	100NF 16V K R
C142	VE-30000384	CAP EL	2.2UF 50V M
C143	VE-30012583	CAP SMD	1.5NF 50V K
C144	VE-30012583	CAP SMD	1.5NF 50V K
C145	VE-30012589	CAP SMD	4.7NF 50V K
C155	VE-30012560	CAP SMD	100PF 50V J
C159	VE-30012560	CAP SMD	100PF 50V J
C160	VE-30000387	CAP EL	33UF 50V M
C166	VE-30012559	CAP SMD	10PF 50V D
C201	VE-30000400	CAP EL	47UF 50V M
C205	VE-30000371	CAP EL	22UF 50V M
C206	VE-30012610	CAP SMD	10NF 50V J
C207	VE-30012610	CAP SMD	10NF 50V J
C300	VE-30000400	CAP EL	47UF 50V M
C302	VE-30000092	CAP MKT	220NF 63V J
C408	VE-30012586	CAP SMD	22NF 50V K
C409	VE-30000345	CAP EL	10UF 50V M
C410	VE-30000384	CAP EL	2.2UF 50V M
C411	VE-30000345	CAP EL	10UF 50V M
C412	VE-30012586	CAP SMD	22NF 50V K
C413	VE-30000362	CAP EL	1UF 50V M
C414	VE-30012585	CAP SMD	2.2NF 50V K R
C415	VE-30012581	CAP SMD	1NF 50V K R
C416	VE-30000362	CAP EL	1UF 50V M
C417	VE-30000362	CAP EL	1UF 50V M
C418	VE-30012586	CAP SMD	22NF 50V K
C419	VE-30000413	CAP EL	4.7UF 50V M
C420	VE-30000100	CAP MKT	330NF 63V J
C422	VE-30000400	CAP EL	47UF 50V M
C423	VE-30000400	CAP EL	47UF 50V M
C424	VE-30000345	CAP EL	10UF 50V M
C425	VE-30012586	CAP SMD	22NF 50V K
C426	VE-30016654	CAP SMD	100NF 16V K R
C427	VE-30016654	CAP SMD	100NF 16V K R
C429	VE-30012589	CAP SMD	4.7NF 50V K
C431	VE-30000362	CAP EL	1UF 50V M
C432	VE-30012586	CAP SMD	22NF 50V K
C433	VE-30000345	CAP EL	10UF 50V M
C434	VE-30016654	CAP SMD	100NF 16V K R
C435	VE-30016654	CAP SMD	100NF 16V K R
C436	VE-30000109	CAP MKT	470NF 63V J
C437	VE-30016654	CAP SMD	100NF 16V K R
C438	VE-30016654	CAP SMD	100NF 16V K R
C439	VE-30016654	CAP SMD	100NF 16V K R
C440	VE-30000074	CAP MKT	100NF 63V J
C441	VE-30012582	CAP SMD	10NF 50V K R
C443	VE-30000362	CAP EL	1UF 50V M
C444	VE-30000384	CAP EL	2.2UF 50V M
C448	VE-30012586	CAP SMD	22NF 50V K
C449	VE-30012567	CAP SMD	220PF 50V J
C452	VE-30012581	CAP SMD	1NF 50V K R
C454	VE-30012573	CAP SMD	47PF 50V J
C455	VE-30012573	CAP SMD	47PF 50V J
C456	VE-30012573	CAP SMD	47PF 50V J
C459	VE-30012575	CAP SMD	4.7PF 50V C CH
C460	VE-30000345	CAP EL	10UF 50V M
C502	VE-30000396	CAP EL	47UF 16V M
C504	VE-30012586	CAP SMD	22NF 50V K
C505	VE-30012589	CAP SMD	4.7NF 50V K
C510	VE-30012586	CAP SMD	22NF 50V K
C511	VE-30012566	CAP SMD	22PF 50V J
C513	VE-30000371	CAP EL	22UF 50V M
C514	VE-30012586	CAP SMD	22NF 50V K
C515	VE-30012579	CAP SMD	82PF 50V J
C517	VE-30012586	CAP SMD	22NF 50V K
C518	VE-30012586	CAP SMD	22NF 50V K
C519	VE-30000352	CAP EL	100UF 16V M
C520	VE-30012560	CAP SMD	100PF 50V J
C521	VE-30012562	CAP SMD	15PF 50V J
C522	VE-30012562	CAP SMD	15PF 50V J
C523	VE-30012585	CAP SMD	2.2NF 50V K R
C525	VE-30012566	CAP SMD	22PF 50V J
C530	VE-30012589	CAP SMD	4.7NF 50V K
C531	VE-30000384	CAP EL	2.2UF 50V M
C532	VE-30012586	CAP SMD	22NF 50V K
C536	VE-30000074	CAP MKT	100NF 63V J
C541	VE-30000109	CAP MKT	470NF 63V J
C542	VE-30000205	CAP CER	150PF 50V J SL

⚠Ref No.	Part No.	Part Name	Description Local
C543	VE-30000205	CAP CER	150PF 50V J SL
C545	VE-30012607	CAP SMD	150PF 50V J
C603	VE-30000384	CAP EL	2.2UF 50V M
C604	VE-30000345	CAP EL	10UF 50V M
C608	VE-30000107	CAP MKT	47NF 250V J
C610	VE-30000355	CAP EL	100UF 50V M
C611	VE-30000092	CAP MKT	220NF 63V J
C613	VE-30016085	CAP EL	10UF 63V 105°
C615	VE-30000359	CAP EL	1000UF 16V M
C616	VE-30000352	CAP EL	100UF 16V M
⚠C618	VE-30007100	CAP MKP	10NF 1600Vdc / 1250Vpp %3.5
⚠C619	VE-30000131	CAP MKP	100NF 250V J
C623	VE-30000404	CAP EL	47UF 160V M (HR) 105°
C624	VE-30000350	CAP EL	10UF 250V M
C627	VE-30000152	CAP MKP	330NF 250V J
C628	VE-30018380	CAP EL	3.3UF 160V M 105°
C631	VE-30000410	CAP EL	470UF 50V M
C632	VE-30000100	CAP MKT	330NF 63V J
C633	VE-30016085	CAP EL	10UF 63V 105°
C634	VE-30000409	CAP EL	470UF 25V M
C635	VE-30000100	CAP MKT	330NF 63V J
C636	VE-30000387	CAP EL	33UF 50V M
C638	VE-30012581	CAP SMD	1NF 50V K R
C639	VE-30000431	CAP CER	100PF 1KV M
C641	VE-30000345	CAP EL	10UF 50V M
C642	VE-30012609	CAP SMD	68NF 50V K
C643	VE-30000116	CAP MKT	68NF 63V J
C644	VE-30000362	CAP EL	1UF 50V M
⚠C801	VE-30000094	CAP MKT	220NF 275V M AC
⚠C802	VE-30000094	CAP MKT	220NF 275V M AC
⚠C803	VE-30000433	CAP CER	1NF 1KV M B
⚠C804	VE-30000433	CAP CER	1NF 1KV M B
C808	VE-30000295	CAP CER	100NF 50V Z F
C809	VE-30000418	CAP EL	100UF 400V M
C810	VE-30000387	CAP EL	33UF 50V M
C811	VE-30000161	CAP MKP	47NF 630Vdc / 622Vpp J
C812	VE-30009208	CAP CER	470PF 1KV K
C813	VE-30000295	CAP CER	100NF 50V Z F
C816	VE-30000447	CAP CER	4.7NF 4KV M E
C817	VE-30000198	CAP CER	120PF 500V J SL
C818	VE-30016654	CAP SMD	100NF 16V K R
C819	VE-30012609	CAP SMD	68NF 50V K
C824	VE-30000433	CAP CER	1NF 1KV M B
C826	VE-30000404	CAP EL	47UF 160V M (HR) 105°
C827	VE-30000411	CAP EL	4700UF 16V M
C828	VE-30000295	CAP CER	100NF 50V Z F
C829	VE-30000407	CAP EL	470UF 16V M
C830	VE-30000382	CAP EL	2200UF 16V M
C832	VE-30000295	CAP CER	100NF 50V Z F
C833	VE-30000409	CAP EL	470UF 25V M
C834	VE-30000295	CAP CER	100NF 50V Z F
C836	VE-30000431	CAP CER	100PF 1KV M
C838	VE-30000352	CAP EL	100UF 16V M
C839	VE-30000352	CAP EL	100UF 16V M
C840	VE-30000352	CAP EL	100UF 16V M
C843	VE-30000431	CAP CER	100PF 1KV M
C848	VE-30000352	CAP EL	100UF 16V M
C849	VE-30000352	CAP EL	100UF 16V M
C850	VE-30000352	CAP EL	100UF 16V M
C855	VE-30000407	CAP EL	470UF 16V M
C857	VE-30012573	CAP SMD	47PF 50V J
C858	VE-30007308	CAP CER	220PF 1KV K
C862	VE-30000367	CAP EL	1UF 250V M
C863	VE-30000433	CAP CER	1NF 1KV M B
C907	VE-30000434	CAP CER	1NF 2KV K B
C908	VE-30000415	CAP EL	4.7UF 250V M
C912	VE-30000075	CAP MKT	100NF 250V K (DC)
NOT1	VE-30000352	CAP EL	100UF 16V M
X403	VE-30000074	CAP MKT	100NF 63V J
R101	VE-30012509	RES SMD	1/16W 100K J
R104	VE-30000594	RES CF	1/4W 22K J
R105	VE-30000792	RES CF	1/4W 75R J
R108	VE-30000723	RES CF	1/4W 47K J
R109	VE-30012713	RES SMD	1/16W 75R J
R110	VE-30012713	RES SMD	1/16W 75R J
R113	VE-30012713	RES SMD	1/16W 75R J
R114	VE-30012713	RES SMD	1/16W 75R J
R115	VE-30012713	RES SMD	1/16W 75R J
R116	VE-30012987	RES SMD	1/16W 56R J
R117	VE-30012713	RES SMD	1/16W 75R J
R118	VE-30000792	RES CF	1/4W 75R J
R122	VE-30000792	RES CF	1/4W 75R J
R123	VE-30000792	RES CF	1/4W 75R J
R125	VE-30012657	RES SMD	1/16W 1K J
R126	VE-30012695	RES SMD	1/16W 470R J
R127	VE-30000459	RES CF	1/4W 100R J
R128	VE-30000471	RES CF	1/4W 10K J
R129	VE-30012713	RES SMD	1/16W 75R J
R130	VE-30000594	RES CF	1/4W 22K J
R132	VE-30000723	RES CF	1/4W 47K J
R133	VE-30000718	RES CF	1/4W 4.7K J
R135	VE-30012657	RES SMD	1/16W 1K J
R153	VE-30012657	RES SMD	1/16W 1K J
R201	VE-30012674	RES SMD	1/16W 27K J
R202	VE-30012692	RES SMD	1/16W 4.7K J
R204	VE-30000459	RES CF	1/4W 100R J
R206	VE-30000459	RES CF	1/4W 100R J
R301	VE-30000471	RES CF	1/4W 10K J
R302	VE-30000471	RES CF	1/4W 10K J
R303	VE-30012641	RES SMD	1/16W 10K J
R305	VE-30012641	RES SMD	1/16W 10K J
R306	VE-30012509	RES SMD	1/16W 100K J
R417	VE-30012510	RES SMD	1/16W 100R J
R418	VE-30012510	RES SMD	1/16W 100R J
R419	VE-30012649	RES SMD	1/16W 150R J
R420	VE-30000466	RES CF	1/4W 1K J
R421	VE-30012650	RES SMD	1/16W 15K J
R422	VE-30012659	RES SMD	1/16W 2.2K J
R423	VE-30012712	RES SMD	1/16W 8.2K J
R424	VE-30000712	RES CF	1/4W 470R J
R425	VE-30000583	RES CF	1/4W 220R J
R426	VE-30012659	RES SMD	1/16W 2.2K J
R427	VE-30012674	RES SMD	1/16W 27K J
R428	VE-30000792	RES CF	1/4W 75R J
R431	VE-30012674	RES SMD	1/16W 27K J
R432	VE-30012657	RES SMD	1/16W 1K J
R433	VE-30012667	RES SMD	1/16W 220K J
R437	VE-30000466	RES CF	1/4W 1K J
R438	VE-30000466	RES CF	1/4W 1K J
R439	VE-30012657	RES SMD	1/16W 1K J
R440	VE-30012714	RES SMD	1/16W 820R J
R441	VE-30012656	RES SMD	1/16W 18K J
R442	VE-30000466	RES CF	1/4W 1K J
R446	VE-30012714	RES SMD	1/16W 820R J
R447	VE-30012714	RES SMD	1/16W 820R J
R448	VE-30012683	RES SMD	1/16W 330K J
R449	VE-30012662	RES SMD	1/16W 2.7K J
R450	VE-30000712	RES CF	1/4W 470R J
R454	VE-30000594	RES CF	1/4W 22K J
R455	VE-30012656	RES SMD	1/16W 18K J
R458	VE-30012662	RES SMD	1/16W 2.7K J
R459	VE-30012510	RES SMD	1/16W 100R J
R460	VE-30012510	RES SMD	1/16W 100R J
R461	VE-30012510	RES SMD	1/16W 100R J
R469	VE-30000670	RES CF	1/4W 330K J
R470	VE-30012683	RES SMD	1/16W 330K J
R475	VE-30012510	RES SMD	1/16W 100R J
R476	VE-30012707	RES SMD	1/16W 680R J
R477	VE-30014022	RES SMD	1/16W 47R J
R502	VE-30012695	RES SMD	1/16W 470R J
R503	VE-30012707	RES SMD	1/16W 680R J
R504	VE-30012679	RES SMD	1/16W 3.9K J
R505	VE-30012673	RES SMD	1/16W 270R J
R506	VE-30012506	RES SMD	1/16W 1.5K J
R507	VE-30012657	RES SMD	1/16W 1K J
R508	VE-30000706	RES CF	1/4W 47R J
R509	VE-30012641	RES SMD	1/16W 10K J
R510	VE-30000622	RES CF	1/4W 270R J
R511	VE-30012657	RES SMD	1/16W 1K J
R512	VE-30012504	RES SMD	1/16W 1.2K J
R513	VE-30000459	RES CF	1/4W 100R J
R514	VE-30000459	RES CF	1/4W 100R J
R515	VE-30012692	RES SMD	1/16W 4.7K J
R516	VE-30012692	RES SMD	1/16W 4.7K J
R517	VE-30012692	RES SMD	1/16W 4.7K J
R518	VE-30000471	RES CF	1/4W 10K J
R519	VE-30012698	RES SMD	1/16W 5.6K J
R525	VE-30000583	RES CF	1/4W 220R J
R526	VE-30012641	RES SMD	1/16W 10K J
R527	VE-30000718	RES CF	1/4W 4.7K J
R528	VE-30012698	RES SMD	1/16W 5.6K J
R530	VE-30012698	RES SMD	1/16W 5.6K J
R531	VE-30012692	RES SMD	1/16W 4.7K J
R532	VE-30012659	RES SMD	1/16W 2.2K J
R533	VE-30012644	RES SMD	1/16W 12K J
R534	VE-30000526	RES CF	1/4W 1.5K J
R535	VE-30000718	RES CF	1/4W 4.7K J
R536	VE-30000471	RES CF	1/4W 10K J
R537	VE-30012641	RES SMD	1/16W 10K J
R545	VE-30012644	RES SMD	1/16W 12K J
R546	VE-30000590	RES CF	1/4W 2.2K J
R547	VE-30012659	RES SMD	1/16W 2.2K J
R548	VE-30012641	RES SMD	1/16W 10K J

⚠Ref No.	Part No.	Part Name	Description	Local
R555	VE-30012659	RES SMD	1/16W 2.2K J	
R556	VE-30012657	RES SMD	1/16W 1K J	
R559	VE-30000470	RES CF	1/2W 10K J	
R560	VE-30012669	RES SMD	1/16W 22K J	
R561	VE-30012692	RES SMD	1/16W 4.7K J	
R562	VE-30000471	RES CF	1/4W 10K J	
R564	VE-30012641	RES SMD	1/16W 10K J	
R601	VE-30000752	RES CF	1/4W 56K J	
R602	VE-30000536	RES CF	1/4W 150K J	
R605	VE-30000504	RES CF	1/4W 120K J	
R612	VE-30012692	RES SMD	1/16W 4.7K J	
R613	VE-30012692	RES SMD	1/16W 4.7K J	
R618	VE-30012662	RES SMD	1/16W 2.7K J	
R619	VE-30012641	RES SMD	1/16W 10K J	
R623	VE-30000607	RES CF	1/4W 2.2R J	
R624	VE-30001161	RES MO	2W 39R J	
R625	VE-30000900	RES MF	1/4W 1.8K J	
R627	VE-30000910	RES MF	1/2W 1.8R G	
R628	VE-30000650	RES CF	1/4W 33R J	
R630	VE-30000828	RES CF	1/4W 8.2M J	
R631	VE-30000885	RES MF	1/4W 1.5K J	
R633	VE-30000706	RES CF	1/4W 47R J	
R634	VE-30012641	RES SMD	1/16W 10K J	
R637	VE-30000621	RES CF	1/2W 270R J	
R638	VE-30000612	RES CF	1/4W 2.4K J	
R639	VE-30000718	RES CF	1/4W 4.7K J	
R640	VE-30012662	RES SMD	1/16W 2.7K J	
R641	VE-30012649	RES SMD	1/16W 150R J	
R645	VE-30016868	RES MO	3W 2.2K J	
R646	VE-30000500	RES CF	1/4W 12K J	
R647	VE-30000466	RES CF	1/4W 1K J	
R648	VE-30001254	RES FUSE	1/2W 0.68R J	
R649	VE-30000775	RES CF	1/4W 6.8K J	
R650	VE-30000744	RES CF	1/4W 560R J	
R654	VE-30000705	RES CF	1/2W 47R J	
R655	VE-30000705	RES CF	1/2W 47R J	
R657	VE-30012656	RES SMD	1/16W 18K J	
R658	VE-30001161	RES MO	2W 39R J	
R659	VE-30001123	RES MO	2W 220R J	
R660	VE-30012669	RES SMD	1/16W 22K J	
R661	VE-30012674	RES SMD	1/16W 27K J	
R662	VE-30000712	RES CF	1/4W 470R J	
R663	VE-30000459	RES CF	1/4W 100R J	
R665	VE-30012708	RES SMD	1/16W 68K J	
R801	VE-30000982	RES MF	1/4W 4.7K J	
R803	VE-30012692	RES SMD	1/16W 4.7K J	
R804	VE-30000536	RES CF	1/4W 150K J	
R805	VE-30000843	RES MF	1/4W 10R J	
R806	VE-30000982	RES MF	1/4W 4.7K J	
R807	VE-30001159	RES MO	1W 0.33R J	
R809	VE-30007784	RES MO	5W 33K J	
⚠R810	VE-30001257	RES MG	1/2W 4.7M J	
R811	VE-30000594	RES CF	1/4W 22K J	
R813	VE-30000718	RES CF	1/4W 4.7K J	
R814	VE-30012662	RES SMD	1/16W 2.7K J	
R815	VE-30000452	RES CF	1/4W 10R J	
R817	VE-30001037	RES MF	1/4W 99K F	
R818	VE-30000925	RES MF	1/4W 2.2K F	
R819	VE-30000466	RES CF	1/4W 1K J	
R821	VE-30000470	RES CF	1/2W 10K J	
R828	VE-30001260	RES WW	5W 2.2R J	
R829	VE-30000718	RES CF	1/4W 4.7K J	
R830	VE-30012657	RES SMD	1/16W 1K J	
R831	VE-30012669	RES SMD	1/16W 22K J	
R835	VE-30016802	RES WW 5W	5.6R J RAD	
R900	VE-30006712	FERRITE BEAD		
R901	VE-30006712	FERRITE BEAD		
R902	VE-30006712	FERRITE BEAD		
R903	VE-30000525	RES CF	1/2W 1.5K J	
R904	VE-30000525	RES CF	1/2W 1.5K J	
R905	VE-30000525	RES CF	1/2W 1.5K J	
R906	VE-30000525	RES CF	1/2W 1.5K J	
⚠R919	VE-30001213	RES FUSE	1/4W 1R J	
J107	VE-30000683	RES CF	1/4W 390R J	
J108	VE-30000712	RES CF	1/4W 470R J	
J271	VE-30000712	RES CF	1/4W 470R J	
S142	VE-30012673	RES SMD	1/16W 270R J	
J282	VE-30001992	FIXED COIL	10UH	
J313	VE-30001994	FIXED COIL	22UH	
L201	VE-30001979	FIXED COIL	1UH	
L402	VE-30001992	FIXED COIL	10UH	
L404	VE-30001990	FIXED COIL	6.8UH	
L405	VE-30026042	ADJ.COIL		
L601	VE-30001990	FIXED COIL	6.8UH	
L603	VE-30002149	LINEARITY COIL	50UH	
L803	VE-30001984	FIXED COIL	2.2UH	
L807	VE-30001992	FIXED COIL	10UH	
L810	VE-30001992	FIXED COIL	10UH	
⚠TR601	VE-30017788	TRF FBT		
⚠TR802	VE-30013683	TRF SMPS	(170-270V)	
⚠F801	VE-30001731	FUSE	2.5A	
J281	VE-30006712	FERRITE BEAD		
L101	VE-30001971	FERRITE SMD		
L103	VE-30001971	FERRITE SMD		
L110	VE-30001971	FERRITE SMD		
L111	VE-30001971	FERRITE SMD		
L112	VE-30001971	FERRITE SMD		
L113	VE-30001971	FERRITE SMD		
L114	VE-30001971	FERRITE SMD		
L116	VE-30001971	FERRITE SMD		
L210	VE-30001971	FERRITE SMD		
L211	VE-30001971	FERRITE SMD		
L401	VE-30001971	FERRITE SMD		
L403	VE-30001971	FERRITE SMD		
L406	VE-30001971	FERRITE SMD		
L604	VE-30001971	FERRITE SMD		
L802	VE-30001971	FERRITE SMD		
L805	VE-30001971	FERRITE SMD		
L806	VE-30001971	FERRITE SMD		
PL101	VE-30015053	SOCKET SCART		
⚠PL903	VE-30001855	SOCKET CRT		
SG900	VE-30000428	SPARK GAP	300V	
SG901	VE-30000428	SPARK GAP	300V	
SG902	VE-30000428	SPARK GAP	300V	
SW501	VE-30002178	SWITCH TACT		
SW502	VE-30002178	SWITCH TACT		
SW503	VE-30002178	SWITCH TACT		
SW504	VE-30002178	SWITCH TACT		
SW505	VE-30002178	SWITCH TACT		
⚠SW801	VE-30017848	SWITCH ON/OFF		
⚠TH800	VE-30001270	PTC	9 OHM	
⚠TR801	VE-30002100	LINE FILTER		
⚠TU201	VE-30009637	TUNER WSP (PLL)		
X401	VE-30001749	XTAL		
X402	VE-30015592	XTAL		
X501	VE-30002851	XTAL		
Z402	VE-30012544	FILTER SAW		

FRONT AV JACK P.W. BOARD ASS'Y (VE-20166161)

⚠Ref No.	Part No.	Part Name	Description	Local
D1201	VE-30001350	DIODE ZENER	12V	
D1203	VE-30001350	DIODE ZENER	12V	
PL1204	VE-30001882	RCA JACK	1P WHITE	
PL1203	VE-30001884	RCA JACK	1P YELLOW	

HEADPHONE JACK P.W. BOARD ASS'Y (VE-20165426)

⚠Ref No.	Part No.	Part Name	Description	Local
D100	VE-30001371	DIODE ZENER		
D101	VE-30001371	DIODE ZENER		
C100	VE-30000330	CAP CER	4.7NF 50V K B	
C101	VE-30000330	CAP CER	4.7NF 50V K B	
R100	VE-30000492	RES CF	1/4W 120R J	
R101	VE-30000492	RES CF	1/4W 120R J	
R102	VE-30000744	RES CF	1/4W 121R J	
R103	VE-30000744	RES CF	1/4W 121R J	
JK1	VE-30001900	JACK HEADPHONE	HP01	

PRINTED WIRING BOARD PARTS LIST [AV-21RM4SE]

MAIN P.W. BOARD ASS'Y (VE-20161048)

⚠Ref No.	Part No.	Part Name	Description	Local
IC118	VE-30023137	IC		
IC401	VE-30013986	IC		
IC403	VE-30026922	IC		
IC500	VE-20121218	IC (MEMORY)		
IC501	VE-20091454	IC (MICOM)		
IC502	VE-30001670	PREAMPLIFIER		
⚠IC600	VE-30015306	IC		
IC800	VE-30011968	IC		
⚠IC801	VE-30015087	IC		
IC803	VE-30001500	IC		
IC804	VE-30001622	IC		
IC806	VE-30014346	IC		
⚠IC900	VE-30025172	IC		
Q101	VE-30001457	TRANSISTOR		
Q103	VE-30001457	TRANSISTOR		
Q105	VE-30001457	TRANSISTOR		
Q301	VE-30001458	TRANSISTOR		
Q302	VE-30001457	TRANSISTOR		
Q406	VE-30001457	TRANSISTOR		
Q504	VE-30001458	TRANSISTOR		
Q601	VE-30013656	TRANSISTOR POWER		
⚠Q603	VE-30001448	TRANSISTOR	H.OUT	
Q801	VE-30001386	TRANSISTOR		
Q804	VE-30001454	TRANSISTOR		
D101	VE-30007760	DIODE ZENER		
D102	VE-30007760	DIODE ZENER		
D103	VE-30007760	DIODE ZENER		
D104	VE-30007762	DIODE ZENER		
D106	VE-30001377	DIODE ZENER		
D300	VE-30001285	DIODE		
D301	VE-30001285	DIODE		
D405	VE-30007763	DIODE ZENER		
D407	VE-30001284	DIODE		
D408	VE-30001285	DIODE		
D409	VE-30007760	DIODE ZENER		
D410	VE-30007760	DIODE ZENER		
D411	VE-30007760	DIODE ZENER		
D501	VE-30001285	DIODE		
D505	VE-30001285	DIODE		
D506	VE-30001284	DIODE		
D509	VE-30001279	LED		
D512	VE-30001285	DIODE		
D513	VE-30001339	DIODE ZENER		
D602	VE-30001329	DIODE		
D603	VE-30001285	DIODE		
D608	VE-30001318	DIODE		
D609	VE-30001318	DIODE		
D610	VE-30001318	DIODE		
D611	VE-30001285	DIODE		
D614	VE-30001318	DIODE		
D615	VE-30001285	DIODE		
D616	VE-30009699	DIODE ZENER		
D619	VE-30009699	DIODE ZENER		
D620	VE-30003722	DIODE ZENER		
D800	VE-30001318	DIODE		
D801	VE-30001347	DIODE ZENER		
D802	VE-30001318	DIODE		
D803	VE-30001315	DIODE		
D804	VE-30001285	DIODE		
D805	VE-30001315	DIODE		
D806	VE-30001315	DIODE		
D808	VE-30007681	DIODE		
D809	VE-30001329	DIODE		
D810	VE-30009366	DIODE		
⚠D811	VE-30001329	DIODE		
D812	VE-30001285	DIODE		
⚠D813	VE-30001329	DIODE		
⚠D837	VE-30001329	DIODE		
⚠D838	VE-30001329	DIODE		
D889	VE-30001384	TRANSISTOR		
D890	VE-30001329	DIODE		
D893	VE-30001329	DIODE		
D894	VE-30001329	DIODE		
D900	VE-30001318	DIODE		
D901	VE-30001318	DIODE		
D902	VE-30001318	DIODE		
D903	VE-30001344	DIODE ZENER		
C101	VE-30016654	CAP SMD	100NF 16V K R	
C108	VE-30000371	CAP EL	22UF 50V M	

⚠Ref No.	Part No.	Part Name	Description	Local
C114	VE-30016654	CAP SMD	100NF 16V K R	
C142	VE-30000384	CAP EL	2.2UF 50V M	
C143	VE-30012583	CAP SMD	1.5NF 50V K	
C144	VE-30012583	CAP SMD	1.5NF 50V K	
C145	VE-30012589	CAP SMD	4.7NF 50V K	
C155	VE-30012560	CAP SMD	100PF 50V J	
C159	VE-30012560	CAP SMD	100PF 50V J	
C160	VE-30000387	CAP EL	33UF 50V M	
C166	VE-30012559	CAP SMD	10PF 50V D	
C201	VE-30000400	CAP EL	47UF 50V M	
C205	VE-30000371	CAP EL	22UF 50V M	
C206	VE-30012610	CAP SMD	10NF 50V J	
C207	VE-30012610	CAP SMD	10NF 50V J	
C300	VE-30000400	CAP EL	47UF 50V M	
C302	VE-30000092	CAP MKT	220NF 63V J	
C408	VE-30012586	CAP SMD	22NF 50V K	
C409	VE-30000345	CAP EL	10UF 50V M	
C410	VE-30000384	CAP EL	2.2UF 50V M	
C411	VE-30000345	CAP EL	10UF 50V M	
C412	VE-30012586	CAP SMD	22NF 50V K	
C413	VE-30000362	CAP EL	1UF 50V M	
C414	VE-30012585	CAP SMD	2.2NF 50V K R	
C415	VE-30012581	CAP SMD	1NF 50V K R	
C416	VE-30000362	CAP EL	1UF 50V M	
C417	VE-30000362	CAP EL	1UF 50V M	
C418	VE-30012586	CAP SMD	22NF 50V K	
C419	VE-30000413	CAP EL	4.7UF 50V M	
C420	VE-30000100	CAP MKT	330NF 63V J	
C422	VE-30000400	CAP EL	47UF 50V M	
C423	VE-30000400	CAP EL	47UF 50V M	
C424	VE-30000345	CAP EL	10UF 50V M	
C425	VE-30012586	CAP SMD	22NF 50V K	
C426	VE-30016654	CAP SMD	100NF 16V K R	
C427	VE-30016654	CAP SMD	100NF 16V K R	
C429	VE-30012589	CAP SMD	4.7NF 50V K	
C431	VE-30000362	CAP EL	1UF 50V M	
C432	VE-30012586	CAP SMD	22NF 50V K	
C433	VE-30000345	CAP EL	10UF 50V M	
C434	VE-30016654	CAP SMD	100NF 16V K R	
C435	VE-30016654	CAP SMD	100NF 16V K R	
C436	VE-30000109	CAP MKT	470NF 63V J	
C437	VE-30016654	CAP SMD	100NF 16V K R	
C438	VE-30016654	CAP SMD	100NF 16V K R	
C439	VE-30016654	CAP SMD	100NF 16V K R	
C440	VE-30000074	CAP MKT	100NF 63V J	
C441	VE-30012582	CAP SMD	10NF 50V K R	
C443	VE-30000362	CAP EL	1UF 50V M	
C444	VE-30000384	CAP EL	2.2UF 50V M	
C448	VE-30012586	CAP SMD	22NF 50V K	
C449	VE-30012567	CAP SMD	220PF 50V J	
C452	VE-30012581	CAP SMD	1NF 50V K R	
C454	VE-30012573	CAP SMD	47PF 50V J	
C455	VE-30012573	CAP SMD	47PF 50V J	
C456	VE-30012573	CAP SMD	47PF 50V J	
C459	VE-30012575	CAP SMD	4.7PF 50V C CH	
C460	VE-30000345	CAP EL	10UF 50V M	
C502	VE-30000396	CAP EL	47UF 16V M	
C504	VE-30012586	CAP SMD	22NF 50V K	
C505	VE-30012589	CAP SMD	4.7NF 50V K	
C510	VE-30012586	CAP SMD	22NF 50V K	
C511	VE-30012566	CAP SMD	22PF 50V J	
C513	VE-30000371	CAP EL	22UF 50V M	
C514	VE-30012586	CAP SMD	22NF 50V K	
C515	VE-30012579	CAP SMD	82PF 50V J	
C517	VE-30012586	CAP SMD	22NF 50V K	
C518	VE-30012586	CAP SMD	22NF 50V K	
C519	VE-30000352	CAP EL	100UF 16V M	
C520	VE-30012560	CAP SMD	100PF 50V J	
C521	VE-30012562	CAP SMD	15PF 50V J	
C522	VE-30012562	CAP SMD	15PF 50V J	
C523	VE-30012585	CAP SMD	2.2NF 50V K R	
C525	VE-30012566	CAP SMD	22PF 50V J	
C530	VE-30012589	CAP SMD	4.7NF 50V K	
C531	VE-30000384	CAP EL	2.2UF 50V M	
C532	VE-30012586	CAP SMD	22NF 50V K	
C536	VE-30000074	CAP MKT	100NF 63V J	
C541	VE-30000109	CAP MKT	470NF 63V J	
C542	VE-30000205	CAP CER	150PF 50V J SL	
C543	VE-30000205	CAP CER	150PF 50V J SL	
C545	VE-30012607	CAP SMD	150PF 50V J	
C603	VE-30000384	CAP EL	2.2UF 50V M	
C604	VE-30000345	CAP EL	10UF 50V M	
C608	VE-30000107	CAP MKT	47NF 250V J	
C610	VE-30000355	CAP EL	100UF 50V M	

⚠Ref No.	Part No.	Part Name	Description Local
C611	VE-30000092	CAP MKT	220NF 63V J
C613	VE-30016085	CAP EL	10UF 63V 105°
C615	VE-30000359	CAP EL	1000UF 16V M
C616	VE-30000352	CAP EL	100UF 16V M
⚠C618	VE-30000180	CAP MKP	9.1NF 2000Vdc/ 1700Vpp %3.5
⚠C619	VE-30000138	CAP MKP	150NF 250V J
C623	VE-30000404	CAP EL	47UF 160V M (HR) 105°
C624	VE-30000350	CAP EL	10UF 250V M
C627	VE-30000154	CAP MKP	390NF 250V J
C628	VE-30018380	CAP EL	3.3UF 160V M 105°
C631	VE-30000410	CAP EL	470UF 50V M
C632	VE-30000100	CAP MKT	330NF 63V J
C633	VE-30016085	CAP EL	10UF 63V 105°
C634	VE-30000409	CAP EL	470UF 25V M
C635	VE-30000100	CAP MKT	330NF 63V J
C636	VE-30000387	CAP EL	33UF 50V M
C638	VE-30012581	CAP SMD	1NF 50V K R
C639	VE-30000431	CAP CER	100PF 1KV M
C641	VE-30000345	CAP EL	10UF 50V M
C642	VE-30012609	CAP SMD	68NF 50V K
C643	VE-30000116	CAP MKT	68NF 63V J
C644	VE-30000362	CAP EL	1UF 50V M
⚠C801	VE-30000094	CAP MKT	220NF 275V M AC
⚠C802	VE-30000094	CAP MKT	220NF 275V M AC
⚠C803	VE-30000433	CAP CER	1NF 1KV M B
⚠C804	VE-30000433	CAP CER	1NF 1KV M B
C808	VE-30000295	CAP CER	100NF 50V Z F
C809	VE-30000418	CAP EL	100UF 400V M
C810	VE-30000387	CAP EL	33UF 50V M
C811	VE-30000161	CAP MKP	47NF 630Vdc / 622Vpp J
C812	VE-30009208	CAP CER	470PF 1KV K
C813	VE-30000295	CAP CER	100NF 50V Z F
⚠C816	VE-30000447	CAP CER	4.7NF 4KV M E
C817	VE-30000198	CAP CER	120PF 500V J SL
C818	VE-30016654	CAP SMD	100NF 16V K R
C819	VE-30012609	CAP SMD	68NF 50V K
C824	VE-30000433	CAP CER	1NF 1KV M B
C826	VE-30000404	CAP EL	47UF 160V M (HR) 105°
C827	VE-30000411	CAP EL	4700UF 16V M
C828	VE-30000295	CAP CER	100NF 50V Z F
C829	VE-30000407	CAP EL	470UF 16V M
C830	VE-30000382	CAP EL	2200UF 16V M
C832	VE-30000295	CAP CER	100NF 50V Z F
C833	VE-30000409	CAP EL	470UF 25V M
C834	VE-30000295	CAP CER	100NF 50V Z F
C836	VE-30000431	CAP CER	100PF 1KV M
C838	VE-30000352	CAP EL	100UF 16V M
C839	VE-30000352	CAP EL	100UF 16V M
C840	VE-30000352	CAP EL	100UF 16V M
C843	VE-30000431	CAP CER	100PF 1KV M
C848	VE-30000352	CAP EL	100UF 16V M
C849	VE-30000352	CAP EL	100UF 16V M
C850	VE-30000352	CAP EL	100UF 16V M
C855	VE-30000407	CAP EL	470UF 16V M
C857	VE-30012573	CAP SMD	47PF 50V J
C858	VE-30007308	CAP CER	220PF 1KV K
C862	VE-30000367	CAP EL	1UF 250V M
C863	VE-30000433	CAP CER	1NF 1KV M B
C907	VE-30000434	CAP CER	1NF 2KV K B
C908	VE-30000415	CAP EL	4.7UF 250V M
C912	VE-30000075	CAP MKT	100NF 250V K (DC)
NOT1	VE-30000352	CAP EL	100UF 16V M
X403	VE-30000074	CAP MKT	100NF 63V J
R101	VE-30012509	RES SMD	1/16W 100K J
R104	VE-30000594	RES CF	1/4W 22K J
R105	VE-30000792	RES CF	1/4W 75R J
R108	VE-30000723	RES CF	1/4W 47K J
R109	VE-30012713	RES SMD	1/16W 75R J
R110	VE-30012713	RES SMD	1/16W 75R J
R113	VE-30012713	RES SMD	1/16W 75R J
R114	VE-30012713	RES SMD	1/16W 75R J
R115	VE-30012713	RES SMD	1/16W 75R J
R116	VE-30012987	RES SMD	1/16W 56R J
R117	VE-30012713	RES SMD	1/16W 75R J
R118	VE-30000792	RES CF	1/4W 75R J
R122	VE-30000792	RES CF	1/4W 75R J
R123	VE-30000792	RES CF	1/4W 75R J
R125	VE-30012657	RES SMD	1/16W 1K J
R126	VE-30012695	RES SMD	1/16W 470R J
R127	VE-30000459	RES CF	1/4W 100R J
R128	VE-30000471	RES CF	1/4W 10K J
R129	VE-30012713	RES SMD	1/16W 75R J
R130	VE-30000594	RES CF	1/4W 22K J
R132	VE-30000723	RES CF	1/4W 47K J
R133	VE-30000718	RES CF	1/4W 4.7K J
R135	VE-30012657	RES SMD	1/16W 1K J

⚠Ref No.	Part No.	Part Name	Description Local
R153	VE-30012657	RES SMD	1/16W 1K J
R201	VE-30012674	RES SMD	1/16W 27K J
R202	VE-30012692	RES SMD	1/16W 4.7K J
R204	VE-30000459	RES CF	1/4W 100R J
R206	VE-30000459	RES CF	1/4W 100R J
R301	VE-30000471	RES CF	1/4W 10K J
R302	VE-30000471	RES CF	1/4W 10K J
R303	VE-30012641	RES SMD	1/16W 10K J
R305	VE-30012641	RES SMD	1/16W 10K J
R306	VE-30012509	RES SMD	1/16W 100K J
R417	VE-30012510	RES SMD	1/16W 100R J
R418	VE-30012510	RES SMD	1/16W 100R J
R419	VE-30012649	RES SMD	1/16W 150R J
R420	VE-30000466	RES CF	1/4W 1K J
R421	VE-30012650	RES SMD	1/16W 15K J
R422	VE-30012659	RES SMD	1/16W 2.2K J
R423	VE-30012712	RES SMD	1/16W 8.2K J
R424	VE-30000712	RES CF	1/4W 470R J
R425	VE-30000583	RES CF	1/4W 220R J
R426	VE-30012659	RES SMD	1/16W 2.2K J
R427	VE-30012674	RES SMD	1/16W 27K J
R428	VE-30000792	RES CF	1/4W 75R J
R431	VE-30012674	RES SMD	1/16W 27K J
R432	VE-30012657	RES SMD	1/16W 1K J
R433	VE-30012667	RES SMD	1/16W 220K J
R437	VE-30000466	RES CF	1/4W 1K J
R438	VE-30000466	RES CF	1/4W 1K J
R439	VE-30012657	RES SMD	1/16W 1K J
R440	VE-30012714	RES SMD	1/16W 820R J
R441	VE-30012656	RES SMD	1/16W 18K J
R442	VE-30000466	RES CF	1/4W 1K J
R446	VE-30012714	RES SMD	1/16W 820R J
R447	VE-30012714	RES SMD	1/16W 820R J
R448	VE-30012683	RES SMD	1/16W 330K J
R449	VE-30012662	RES SMD	1/16W 2.7K J
R450	VE-30000712	RES CF	1/4W 470R J
R454	VE-30000594	RES CF	1/4W 22K J
R455	VE-30012656	RES SMD	1/16W 18K J
R458	VE-30012662	RES SMD	1/16W 2.7K J
R459	VE-30012510	RES SMD	1/16W 100R J
R460	VE-30012510	RES SMD	1/16W 100R J
R461	VE-30012510	RES SMD	1/16W 100R J
R469	VE-30000670	RES CF	1/4W 330K J
R470	VE-30012683	RES SMD	1/16W 330K J
R475	VE-30012510	RES SMD	1/16W 100R J
R476	VE-30012707	RES SMD	1/16W 680R J
R477	VE-30014022	RES SMD	1/16W 47R J
R502	VE-30012695	RES SMD	1/16W 470R J
R503	VE-30012707	RES SMD	1/16W 680R J
R504	VE-30012679	RES SMD	1/16W 3.9K J
R505	VE-30012673	RES SMD	1/16W 270R J
R506	VE-30012506	RES SMD	1/16W 1.5K J
R507	VE-30012657	RES SMD	1/16W 1K J
R508	VE-30000706	RES CF	1/4W 47R J
R509	VE-30012641	RES SMD	1/16W 10K J
R510	VE-30000622	RES CF	1/4W 270R J
R511	VE-30012657	RES SMD	1/16W 1K J
R512	VE-30012504	RES SMD	1/16W 1.2K J
R513	VE-30000459	RES CF	1/4W 100R J
R514	VE-30000459	RES CF	1/4W 100R J
R515	VE-30012692	RES SMD	1/16W 4.7K J
R516	VE-30012692	RES SMD	1/16W 4.7K J
R517	VE-30012692	RES SMD	1/16W 4.7K J
R518	VE-30000471	RES CF	1/4W 10K J
R519	VE-30012698	RES SMD	1/16W 5.6K J
R525	VE-30000583	RES CF	1/4W 220R J
R526	VE-30012641	RES SMD	1/16W 10K J
R527	VE-30000718	RES CF	1/4W 4.7K J
R528	VE-30012698	RES SMD	1/16W 5.6K J
R530	VE-30012698	RES SMD	1/16W 5.6K J
R531	VE-30012692	RES SMD	1/16W 4.7K J
R532	VE-30012659	RES SMD	1/16W 2.2K J
R533	VE-30012644	RES SMD	1/16W 12K J
R534	VE-30000526	RES CF	1/4W 1.5K J
R535	VE-30000718	RES CF	1/4W 4.7K J
R536	VE-30000471	RES CF	1/4W 10K J
R537	VE-30012641	RES SMD	1/16W 10K J
R545	VE-30012644	RES SMD	1/16W 12K J
R546	VE-30000590	RES CF	1/4W 2.2K J
R547	VE-30012659	RES SMD	1/16W 2.2K J
R548	VE-30012641	RES SMD	1/16W 10K J
R555	VE-30012659	RES SMD	1/16W 2.2K J
R556	VE-30012657	RES SMD	1/16W 1K J
R559	VE-30000470	RES CF	1/2W 10K J
R560	VE-30012669	RES SMD	1/16W 22K J
R561	VE-30012692	RES SMD	1/16W 4.7K J
R562	VE-30000471	RES CF	1/4W 10K J

⚠Ref No.	Part No.	Part Name	Description Local
R564	VE-30012641	RES SMD	1/16W 10K J
R601	VE-30000752	RES CF	1/4W 56K J
R602	VE-30000513	RES CF	1/4W 130K J
R605	VE-30000477	RES CF	1/4W 100K J
R612	VE-30012692	RES SMD	1/16W 4.7K J
R613	VE-30012692	RES SMD	1/16W 4.7K J
R618	VE-30012662	RES SMD	1/16W 2.7K J
R619	VE-30012641	RES SMD	1/16W 10K J
R623	VE-30000607	RES CF	1/4W 2.2R J
R625	VE-30000900	RES MF	1/4W 1.8K J
R627	VE-30000910	RES MF	1/2W 1.8R G
R628	VE-30000650	RES CF	1/4W 33R J
R630	VE-30000828	RES CF	1/4W 8.2M J
R631	VE-30000885	RES MF	1/4W 1.5K J
R633	VE-30000706	RES CF	1/4W 47R J
R634	VE-30012641	RES SMD	1/16W 10K J
R637	VE-30000621	RES CF	1/2W 270R J
R638	VE-30000612	RES CF	1/4W 2.4K J
R639	VE-30000718	RES CF	1/4W 4.7K J
R640	VE-30012662	RES SMD	1/16W 2.7K J
R641	VE-30012649	RES SMD	1/16W 150R J
R645	VE-30016868	RES MO	3W 2.2K J
R646	VE-30000500	RES CF	1/4W 12K J
R647	VE-30000466	RES CF	1/4W 1K J
⚠R648	VE-30001215	RES FUSE	1W 1R J
R649	VE-30000801	RES CF	1/4W 7.5K J
R650	VE-30000744	RES CF	1/4W 560R J
R654	VE-30000705	RES CF	1/2W 47R J
R655	VE-30000705	RES CF	1/2W 47R J
R657	VE-30012656	RES SMD	1/16W 18K J
R658	VE-30001077	RES MO	2W 10R J
R659	VE-30001123	RES MO	2W 220R J
R660	VE-30012669	RES SMD	1/16W 22K J
R661	VE-30012674	RES SMD	1/16W 27K J
R662	VE-30000712	RES CF	1/4W 470R J
R663	VE-30000459	RES CF	1/4W 100R J
R665	VE-30012708	RES SMD	1/16W 68K J
R667	VE-30024752	RES MO	5W 33R J
R801	VE-30000982	RES MF	1/4W 4.7K J
R803	VE-30012692	RES SMD	1/16W 4.7K J
R804	VE-30000536	RES CF	1/4W 150K J
R805	VE-30000843	RES MF	1/4W 10R J
R806	VE-30000982	RES MF	1/4W 4.7K J
R807	VE-30001159	RES MO	1W 0.33R J
R809	VE-30007784	RES MO	5W 33K J
⚠R810	VE-30001257	RES MG	1/2W 4.7M J
R811	VE-30000594	RES CF	1/4W 22K J
R813	VE-30000718	RES CF	1/4W 4.7K J
R814	VE-30012662	RES SMD	1/16W 2.7K J
R815	VE-30000452	RES CF	1/4W 10R J
R817	VE-30001037	RES MF	1/4W 99K F
R818	VE-30000925	RES MF	1/4W 2.2K F
R819	VE-30000466	RES CF	1/4W 1K J
R821	VE-30000470	RES CF	1/2W 10K J
R828	VE-30001260	RES WW	5W 2.2R J
R829	VE-30000718	RES CF	1/4W 4.7K J
R830	VE-30012657	RES SMD	1/16W 1K J
R831	VE-30012669	RES SMD	1/16W 22K J
R835	VE-30016802	RES WW	5W 5.6R J RAD
R900	VE-30000712	RES CF	1/4W 470R J
R901	VE-30000712	RES CF	1/4W 470R J
R902	VE-30000712	RES CF	1/4W 470R J
R903	VE-30000525	RES CF	1/2W 1.5K J
R904	VE-30000525	RES CF	1/2W 1.5K J
R905	VE-30000525	RES CF	1/2W 1.5K J
R906	VE-30000525	RES CF	1/2W 1.5K J
⚠R919	VE-30001213	RES FUSE	1/4W 1R J
J107	VE-30000683	RES CF	1/4W 390R J
J108	VE-30000712	RES CF	1/4W 470R J
J271	VE-30000712	RES CF	1/4W 470R J
S142	VE-30012673	RES SMD	1/16W 270R J
L201	VE-30001979	FIXED COIL	1UH
L402	VE-30001992	FIXED COIL	10UH
L404	VE-30001990	FIXED COIL	6.8UH
L405	VE-30026042	ADJ. COIL	
L601	VE-30001990	FIXED COIL	6.8UH
L603	VE-30002149	LINEARITY COIL	50UH
L803	VE-30001984	FIXED COIL	2.2UH
L807	VE-30001992	FIXED COIL	10UH
L810	VE-30001992	FIXED COIL	10UH
J282	VE-30001992	FIXED COIL	10UH
J313	VE-30001994	FIXED COIL	22UH
⚠TR601	VE-30017788	TRF FBT	
⚠TR802	VE-30013683	TRF SMPS	(170-270V)

⚠Ref No.	Part No.	Part Name	Description Local
⚠F801	VE-30001731	FUSE	2.5A
J281	VE-30006712	FERRITE BEAD	
L101	VE-30001971	FERRITE SMD	
L103	VE-30001971	FERRITE SMD	
L110	VE-30001971	FERRITE SMD	
L111	VE-30001971	FERRITE SMD	
L112	VE-30001971	FERRITE SMD	
L113	VE-30001971	FERRITE SMD	
L114	VE-30001971	FERRITE SMD	
L116	VE-30001971	FERRITE SMD	
L210	VE-30001971	FERRITE SMD	
L211	VE-30001971	FERRITE SMD	
L401	VE-30001971	FERRITE SMD	
L403	VE-30001971	FERRITE SMD	
L406	VE-30001971	FERRITE SMD	
L604	VE-30001971	FERRITE SMD	
L802	VE-30001971	FERRITE SMD	
L805	VE-30001971	FERRITE SMD	
L806	VE-30001971	FERRITE SMD	
PL101	VE-30015053	SOCKET SCART	
⚠PL903	VE-30001855	SOCKET CRT	
SG900	VE-30000428	SPARK GAP	300V
SG901	VE-30000428	SPARK GAP	300V
SG902	VE-30000428	SPARK GAP	300V
SW501	VE-30002178	SWITCH TACT	
SW502	VE-30002178	SWITCH TACT	
SW503	VE-30002178	SWITCH TACT	
SW504	VE-30002178	SWITCH TACT	
SW505	VE-30002178	SWITCH TACT	
⚠SW801	VE-30017848	SWITCH ON/OFF	
⚠TH800	VE-30001270	PTC	9 OHM
⚠TR801	VE-30002100	LINE FILTER	
⚠TU201	VE-30009637	TUNER WSP (PLL)	
X401	VE-30001749	XTAL	
X402	VE-30015592	XTAL	
X501	VE-30002851	XTAL	
Z402	VE-30012544	FILTER SAW	

FRONT AV JACK P.W. BOARD ASS'Y (VE-20166161)

REFER TO PARTS LIST IN PAGE 3-6 FOR THIS P.W. BOARD.

HEADPHONE JACK P.W. BOARD ASS'Y (VE-20165426)

REFER TO PARTS LIST IN PAGE 3-6 FOR THIS P.W. BOARD.

PRINTED WIRING BOARD PARTS LIST [AV-21RM4SN]

MAIN P.W. BOARD ASS'Y (VE-20161045)FRONT AV

⚠Ref No.	Part No.	Part Name	Description Local
IC118	VE-30023137	IC	
IC401	VE-30013986	IC	
IC403	VE-30026920	IC	
IC500	VE-20107567	IC (MEMORY)	
IC501	VE-20091454	IC (MICOM)	
IC502	VE-30001670	PREAMPLIFIER	
⚠IC600	VE-30015306	IC	
IC800	VE-30011968	IC	
⚠IC801	VE-30015087	IC	
IC803	VE-30001500	IC	
IC804	VE-30001622	IC	
IC806	VE-30014346	IC	
⚠IC900	VE-30025172	IC	
Q101	VE-30001457	TRANSISTOR	
Q103	VE-30001457	TRANSISTOR	
Q104	VE-30001457	TRANSISTOR	
Q105	VE-30001457	TRANSISTOR	
Q301	VE-30001458	TRANSISTOR	
Q302	VE-30001457	TRANSISTOR	
Q406	VE-30001457	TRANSISTOR	
Q503	VE-30001457	TRANSISTOR	
Q504	VE-30001458	TRANSISTOR	
Q601	VE-30013656	TRANSISTOR POWER	
⚠Q603	VE-30001448	TRANSISTOR	H. OUT
Q604	VE-30001457	TRANSISTOR	
Q606	VE-30001457	TRANSISTOR	
Q801	VE-30001386	TRANSISTOR	
Q802	VE-30001457	TRANSISTOR	
Q804	VE-30001454	TRANSISTOR	
D101	VE-30007760	DIODE ZENER	
D102	VE-30007760	DIODE ZENER	
D103	VE-30007760	DIODE ZENER	
D104	VE-30007762	DIODE ZENER	
D106	VE-30001377	DIODE ZENER	
D300	VE-30001285	DIODE	
D301	VE-30001285	DIODE	
D405	VE-30007763	DIODE ZENER	
D407	VE-30001284	DIODE	
D408	VE-30001285	DIODE	
D409	VE-30007760	DIODE ZENER	
D410	VE-30007760	DIODE ZENER	
D411	VE-30007760	DIODE ZENER	
D501	VE-30001285	DIODE	
D505	VE-30001285	DIODE	
D506	VE-30001284	DIODE	
D509	VE-30001279	LED	
D512	VE-30001285	DIODE	
D513	VE-30001339	DIODE ZENER	
D602	VE-30001329	DIODE	
D603	VE-30001285	DIODE	
D608	VE-30001318	DIODE	
D609	VE-30001318	DIODE	
D610	VE-30001318	DIODE	
D611	VE-30001285	DIODE	
D614	VE-30001318	DIODE	
D615	VE-30001285	DIODE	
D616	VE-30009699	DIODE ZENER	
D619	VE-30009699	DIODE ZENER	
D620	VE-30003722	DIODE ZENER	
D800	VE-30001318	DIODE	
D801	VE-30001347	DIODE ZENER	
D802	VE-30001318	DIODE	
D803	VE-30001315	DIODE	
D804	VE-30001285	DIODE	
D805	VE-30001315	DIODE	
D806	VE-30001315	DIODE	
D808	VE-30007681	DIODE	
D809	VE-30001329	DIODE	
D810	VE-30009366	DIODE	
⚠D811	VE-30001329	DIODE	
D812	VE-30001285	DIODE	
⚠D813	VE-30001329	DIODE	
⚠D837	VE-30001329	DIODE	
⚠D838	VE-30001329	DIODE	
D889	VE-30001384	TRANSISTOR	
D890	VE-30001329	DIODE	
D893	VE-30001329	DIODE	
D894	VE-30001329	DIODE	
D900	VE-30001318	DIODE	
D901	VE-30001318	DIODE	
D902	VE-30001318	DIODE	
D903	VE-30001344	DIODE ZENER	
C101	VE-30016654	CAP SMD	100NF 16V K R
C108	VE-30000371	CAP EL	22UF 50V M
C114	VE-30016654	CAP SMD	100NF 16V K R
C142	VE-30000384	CAP EL	2.2UF 50V M
C143	VE-30012583	CAP SMD	1.5NF 50V K
C144	VE-30012583	CAP SMD	1.5NF 50V K
C145	VE-30012589	CAP SMD	4.7NF 50V K
C155	VE-30012560	CAP SMD	100PF 50V J
C159	VE-30012560	CAP SMD	100PF 50V J
C160	VE-30000387	CAP EL	33UF 50V M
C166	VE-30012559	CAP SMD	10PF 50V D COG
C201	VE-30000400	CAP EL	47UF 50V M
C205	VE-30000371	CAP EL	22UF 50V M
C206	VE-30012610	CAP SMD	10NF 50V J
C207	VE-30012610	CAP SMD	10NF 50V J
C300	VE-30000400	CAP EL	47UF 50V M
C302	VE-30000092	CAP MKT	220NF 63V J
C408	VE-30012586	CAP SMD	22NF 50V K
C409	VE-30000345	CAP EL	10UF 50V M
C410	VE-30000384	CAP EL	2.2UF 50V M
C411	VE-30000345	CAP EL	10UF 50V M
C412	VE-30012586	CAP SMD	22NF 50V K
C413	VE-30000362	CAP EL	1UF 50V M
C414	VE-30012585	CAP SMD	2.2NF 50V K R
C415	VE-30012581	CAP SMD	1NF 50V K R
C416	VE-30000362	CAP EL	1UF 50V M
C417	VE-30000362	CAP EL	1UF 50V M
C418	VE-30012586	CAP SMD	22NF 50V K
C419	VE-30000413	CAP EL	4.7UF 50V M
C420	VE-30000100	CAP MKT	330NF 63V J
C422	VE-30000400	CAP EL	47UF 50V M
C423	VE-30000400	CAP EL	47UF 50V M
C424	VE-30000345	CAP EL	10UF 50V M
C425	VE-30012586	CAP SMD	22NF 50V K
C426	VE-30016654	CAP SMD	100NF 16V K R
C427	VE-30016654	CAP SMD	100NF 16V K R
C429	VE-30012589	CAP SMD	4.7NF 50V K
C431	VE-30000362	CAP EL	1UF 50V M
C432	VE-30012586	CAP SMD	22NF 50V K
C433	VE-30000345	CAP EL	10UF 50V M
C434	VE-30016654	CAP SMD	100NF 16V K R
C435	VE-30016654	CAP SMD	100NF 16V K R
C436	VE-30000109	CAP MKT	470NF 63V J
C437	VE-30016654	CAP SMD	100NF 16V K R
C438	VE-30016654	CAP SMD	100NF 16V K R
C439	VE-30016654	CAP SMD	100NF 16V K R
C440	VE-30000074	CAP MKT	100NF 63V J
C441	VE-30012582	CAP SMD	10NF 50V K R
C443	VE-30000362	CAP EL	1UF 50V M
C444	VE-30000384	CAP EL	2.2UF 50V M
C448	VE-30012586	CAP SMD	22NF 50V K
C449	VE-30012567	CAP SMD	220PF 50V J
C452	VE-30012581	CAP SMD	1NF 50V K R
C454	VE-30012573	CAP SMD	47PF 50V J
C455	VE-30012573	CAP SMD	47PF 50V J
C456	VE-30012573	CAP SMD	47PF 50V J
C459	VE-30012575	CAP SMD	4.7PF 50V C CH
C460	VE-30000345	CAP EL	10UF 50V M
C502	VE-30000396	CAP EL	47UF 16V M
C504	VE-30012586	CAP SMD	22NF 50V K
C505	VE-30012589	CAP SMD	4.7NF 50V K
C510	VE-30012586	CAP SMD	22NF 50V K
C511	VE-30012566	CAP SMD	22PF 50V J
C513	VE-30000371	CAP EL	22UF 50V M
C514	VE-30012586	CAP SMD	22NF 50V K
C515	VE-30012579	CAP SMD	82PF 50V J
C517	VE-30012586	CAP SMD	22NF 50V K
C518	VE-30012586	CAP SMD	22NF 50V K
C519	VE-30000352	CAP EL	100UF 16V M
C520	VE-30012560	CAP SMD	100PF 50V J
C521	VE-30012562	CAP SMD	15PF 50V J
C522	VE-30012562	CAP SMD	15PF 50V J
C523	VE-30012585	CAP SMD	2.2NF 50V K R
C525	VE-30012566	CAP SMD	22PF 50V J
C530	VE-30012589	CAP SMD	4.7NF 50V K
C531	VE-30000384	CAP EL	2.2UF 50V M
C532	VE-30012586	CAP SMD	22NF 50V K
C536	VE-30000074	CAP MKT	100NF 63V J
C541	VE-30000109	CAP MKT	470NF 63V J
C542	VE-30000205	CAP CER	150PF 50V J SL
C543	VE-30000205	CAP CER	150PF 50V J SL

⚠Ref No.	Part No.	Part Name	Description Local
C545	VE-30012607	CAP SMD	150PF 50V J
C603	VE-30000384	CAP EL	2.2UF 50V M
C604	VE-30000345	CAP EL	10UF 50V M
C608	VE-30000107	CAP MKT	47NF 250V J
C610	VE-30000355	CAP EL	100UF 50V M
C611	VE-30000092	CAP MKT	220NF 63V J
C613	VE-30016085	CAP EL	10UF 63V 105°
C615	VE-30000359	CAP EL	1000UF 16V M
C616	VE-30000352	CAP EL	100UF 16V M
⚠C618	VE-30000180	CAP MKP	9.1NF 2000Vdc/ 1700Vpp %3.5
⚠C619	VE-30000138	CAP MKP	150NF 250V J
C623	VE-30000404	CAP E	47UF 160V M (HR) 105°
C624	VE-30000350	CAP EL	10UF 250V M
C627	VE-30000154	CAP MKP	390NF 250V J
C628	VE-30018380	CAP EL	3.3UF 160V M 105°
C631	VE-30000410	CAP EL	470UF 50V M
C632	VE-30000100	CAP MKT	330NF 63V J
C633	VE-30016085	CAP EL	10UF 63V 105°
C634	VE-30000409	CAP EL	470UF 25V M
C635	VE-30000100	CAP MKT	330NF 63V J
C636	VE-30000387	CAP EL	33UF 50V M
C638	VE-30012581	CAP SMD	1NF 50V K R
C639	VE-30000431	CAP CER	100PF 1KV M
C641	VE-30000345	CAP EL	10UF 50V M
C642	VE-30012609	CAP SMD	68NF 50V K
C643	VE-30000116	CAP MKT	68NF 63V J
C644	VE-30000362	CAP EL	1UF 50V M
⚠C801	VE-30000094	CAP MKT	220NF 275V M AC
⚠C802	VE-30000094	CAP MKT	220NF 275V M AC
⚠C803	VE-30000433	CAP CER	1NF 1KV M B
⚠C804	VE-30000433	CAP CER	1NF 1KV M B
C808	VE-30000295	CAP CER	100NF 50V Z F
C809	VE-30000418	CAP EL	100UF 400V M
C810	VE-30000387	CAP EL	33UF 50V M
C811	VE-30000161	CAP MKP	47NF 630Vdc / 622Vpp J
C812	VE-30009208	CAP CER	470PF 1KV K
C813	VE-30000295	CAP CER	100NF 50V Z F
⚠C816	VE-30000447	CAP CER	4.7NF 4KV M E
C817	VE-30000198	CAP CER	120PF 500V J SL
C818	VE-30016654	CAP SMD	100NF 16V K R
C819	VE-30012609	CAP SMD	68NF 50V K
C824	VE-30000433	CAP CER	1NF 1KV M B
C826	VE-30000404	CAP EL	47UF 160V M (HR) 105°
C827	VE-30000411	CAP EL	4700UF 16V M
C828	VE-30000295	CAP CER	100NF 50V Z F
C829	VE-30000407	CAP EL	470UF 16V M
C830	VE-30000382	CAP EL	2200UF 16V M
C832	VE-30000295	CAP CER	100NF 50V Z F
C833	VE-30000409	CAP EL	470UF 25V M
C834	VE-30000295	CAP CER	100NF 50V Z F
C836	VE-30000431	CAP CER	100PF 1KV M
C838	VE-30000352	CAP EL	100UF 16V M
C839	VE-30000352	CAP EL	100UF 16V M
C840	VE-30000352	CAP EL	100UF 16V M
C843	VE-30000431	CAP CER	100PF 1KV M
C848	VE-30000352	CAP EL	100UF 16V M
C849	VE-30000352	CAP EL	100UF 16V M
C850	VE-30000352	CAP EL	100UF 16V M
C855	VE-30000407	CAP EL	470UF 16V M
C857	VE-30012573	CAP SMD	47PF 50V J
C858	VE-30007308	CAP CER	220PF 1KV K
C862	VE-30000367	CAP EL	1UF 250V M
C863	VE-30000433	CAP CER	1NF 1KV M B
C907	VE-30000434	CAP CER	1NF 2KV K B
C908	VE-30000415	CAP EL	4.7UF 250V M
C912	VE-30000075	CAP MKT	100NF 250V K (DC)
NOT1	VE-30000352	CAP EL	100UF 16V M
X403	VE-30000074	CAP MKT	100NF 63V J
R101	VE-30012509	RES SMD	1/16W 100K J
R104	VE-30000594	RES CF	1/4W 22K J
R105	VE-30000792	RES CF	1/4W 75R J
R108	VE-30000723	RES CF	1/4W 47K J
R109	VE-30012713	RES SMD	1/16W 75R J
R110	VE-30012713	RES SMD	1/16W 75R J
R113	VE-30012713	RES SMD	1/16W 75R J
R114	VE-30012713	RES SMD	1/16W 75R J
R115	VE-30012713	RES SMD	1/16W 75R J
R116	VE-30012987	RES SMD	1/16W 56R J
R117	VE-30012713	RES SMD	1/16W 75R J
R118	VE-30000792	RES CF	1/4W 75R J
R122	VE-30000792	RES CF	1/4W 75R J
R123	VE-30000792	RES CF	1/4W 75R J
R125	VE-30012657	RES SMD	1/16W 1K J
R126	VE-30012695	RES SMD	1/16W 470R J
R127	VE-30000459	RES CF	1/4W 100R J
R128	VE-30000471	RES CF	1/4W 10K J

⚠Ref No.	Part No.	Part Name	Description Local
R129	VE-30012713	RES SMD	1/16W 75R J
R130	VE-30000594	RES CF	1/4W 22K J
R132	VE-30000723	RES CF	1/4W 47K J
R133	VE-30000718	RES CF	1/4W 4.7K J
R135	VE-30012657	RES SMD	1/16W 1K J
R153	VE-30012657	RES SMD	1/16W 1K J
R201	VE-30012674	RES SMD	1/16W 27K J
R202	VE-30012692	RES SMD	1/16W 4.7K J
R204	VE-30000459	RES CF	1/4W 100R J
R206	VE-30000459	RES CF	1/4W 100R J
R301	VE-30000471	RES CF	1/4W 10K J
R302	VE-30000471	RES CF	1/4W 10K J
R303	VE-30012641	RES SMD	1/16W 10K J
R305	VE-30012641	RES SMD	1/16W 10K J
R306	VE-30012509	RES SMD	1/16W 100K J
R417	VE-30012510	RES SMD	1/16W 100R J
R418	VE-30012510	RES SMD	1/16W 100R J
R419	VE-30012649	RES SMD	1/16W 150R J
R420	VE-30000466	RES CF	1/4W 1K J
R421	VE-30012650	RES SMD	1/16W 15K J
R422	VE-30012659	RES SMD	1/16W 2.2K J
R423	VE-30012712	RES SMD	1/16W 8.2K J
R424	VE-30000712	RES CF	1/4W 470R J
R425	VE-30000583	RES CF	1/4W 220R J
R426	VE-30012659	RES SMD	1/16W 2.2K J
R427	VE-30012674	RES SMD	1/16W 27K J
R428	VE-30000792	RES CF	1/4W 75R J
R431	VE-30012674	RES SMD	1/16W 27K J
R432	VE-30012657	RES SMD	1/16W 1K J
R433	VE-30012667	RES SMD	1/16W 220K J
R437	VE-30000466	RES CF	1/4W 1K J
R438	VE-30000466	RES CF	1/4W 1K J
R439	VE-30012657	RES SMD	1/16W 1K J
R440	VE-30012714	RES SMD	1/16W 820R J
R441	VE-30012656	RES SMD	1/16W 18K J
R442	VE-30000466	RES CF	1/4W 1K J
R446	VE-30012714	RES SMD	1/16W 820R J
R447	VE-30012714	RES SMD	1/16W 820R J
R448	VE-30012683	RES SMD	1/16W 330K J
R449	VE-30012662	RES SMD	1/16W 2.7K J
R450	VE-30000712	RES CF	1/4W 470R J
R454	VE-30000594	RES CF	1/4W 22K J
R455	VE-30012656	RES SMD	1/16W 18K J
R458	VE-30012662	RES SMD	1/16W 2.7K J
R459	VE-30012510	RES SMD	1/16W 100R J
R460	VE-30012510	RES SMD	1/16W 100R J
R461	VE-30012510	RES SMD	1/16W 100R J
R469	VE-30000670	RES CF	1/4W 330K J
R470	VE-30012683	RES SMD	1/16W 330K J
R475	VE-30012510	RES SMD	1/16W 100R J
R476	VE-30012707	RES SMD	1/16W 680R J
R477	VE-30014022	RES SMD	1/16W 47R J
R502	VE-30012695	RES SMD	1/16W 470R J
R503	VE-30012707	RES SMD	1/16W 680R J
R504	VE-30012679	RES SMD	1/16W 3.9K J
R505	VE-30012673	RES SMD	1/16W 270R J
R506	VE-30012506	RES SMD	1/16W 1.5K J
R507	VE-30012657	RES SMD	1/16W 1K J
R508	VE-30000706	RES CF	1/4W 47R J
R509	VE-30012641	RES SMD	1/16W 10K J
R510	VE-30000622	RES CF	1/4W 270R J
R511	VE-30012657	RES SMD	1/16W 1K J
R512	VE-30012504	RES SMD	1/16W 1.2K J
R513	VE-30000459	RES CF	1/4W 100R J
R514	VE-30000459	RES CF	1/4W 100R J
R515	VE-30012692	RES SMD	1/16W 4.7K J
R516	VE-30012692	RES SMD	1/16W 4.7K J
R517	VE-30012692	RES SMD	1/16W 4.7K J
R518	VE-30000471	RES CF	1/4W 10K J
R519	VE-30012698	RES SMD	1/16W 5.6K J
R525	VE-30000583	RES CF	1/4W 220R J
R526	VE-30012641	RES SMD	1/16W 10K J
R527	VE-30000718	RES CF	1/4W 4.7K J
R528	VE-30012698	RES SMD	1/16W 5.6K J
R530	VE-30012698	RES SMD	1/16W 5.6K J
R531	VE-30012692	RES SMD	1/16W 4.7K J
R532	VE-30012659	RES SMD	1/16W 2.2K J
R533	VE-30012644	RES SMD	1/16W 12K J
R534	VE-30000526	RES CF	1/4W 1.5K J
R535	VE-30000718	RES CF	1/4W 4.7K J
R536	VE-30000471	RES CF	1/4W 10K J
R537	VE-30012641	RES SMD	1/16W 10K J
R545	VE-30012644	RES SMD	1/16W 12K J
R546	VE-30000590	RES CF	1/4W 2.2K J
R547	VE-30012659	RES SMD	1/16W 2.2K J
R548	VE-30012641	RES SMD	1/16W 10K J
R555	VE-30012659	RES SMD	1/16W 2.2K J

⚠Ref No.	Part No.	Part Name	Description Local
R556	VE-30012657	RES SMD	1/16W 1K J
R559	VE-30000470	RES CF	1/2W 10K J
R560	VE-30012669	RES SMD	1/16W 22K J
R561	VE-30012692	RES SMD	1/16W 4.7K J
R562	VE-30000471	RES CF	1/4W 10K J
R564	VE-30012641	RES SMD	1/16W 10K J
R601	VE-30000752	RES CF	1/4W 56K J
R602	VE-30000513	RES CF	1/4W 130K J
R605	VE-30000477	RES CF	1/4W 100K J
R612	VE-30012692	RES SMD	1/16W 4.7K J
R613	VE-30012692	RES SMD	1/16W 4.7K J
R618	VE-30012662	RES SMD	1/16W 2.7K J
R619	VE-30012641	RES SMD	1/16W 10K J
R623	VE-30000607	RES CF	1/4W 2.2R J
R625	VE-30000900	RES MF	1/4W 1.8K J
R627	VE-30000910	RES MF	1/2W 1.8R G
R628	VE-30000650	RES CF	1/4W 33R J
R630	VE-30000828	RES CF	1/4W 8.2M J
R631	VE-30000885	RES MF	1/4W 1.5K J
R633	VE-30000706	RES CF	1/4W 47R J
R634	VE-30012641	RES SMD	1/16W 10K J
R637	VE-30000621	RES CF	1/2W 270R J
R638	VE-30000612	RES CF	1/4W 2.4K J
R639	VE-30000718	RES CF	1/4W 4.7K J
R640	VE-30012662	RES SMD	1/16W 2.7K J
R641	VE-30012649	RES SMD	1/16W 150R J
R645	VE-30016868	RES MO	3W 2.2K J
R646	VE-30000500	RES CF	1/4W 12K J
R647	VE-30000466	RES CF	1/4W 1K J
⚠R648	VE-30001215	RES FUSE	1W 1R J
R649	VE-30000801	RES CF	1/4W 7.5K J
R650	VE-30000744	RES CF	1/4W 560R J
R654	VE-30000705	RES CF	1/2W 47R J
R655	VE-30000705	RES CF	1/2W 47R J
R657	VE-30012656	RES SMD	1/16W 18K J
R658	VE-30001077	RES MO	2W 10R J
R659	VE-30001123	RES MO	2W 220R J
R660	VE-30012669	RES SMD	1/16W 22K J
R661	VE-30012674	RES SMD	1/16W 27K J
R662	VE-30000712	RES CF	1/4W 470R J
R663	VE-30000459	RES CF	1/4W 100R J
R665	VE-30012708	RES SMD	1/16W 68K J
R667	VE-30024752	RES MO	5W 33R J
R801	VE-30000982	RES MF	1/4W 4.7K J
R803	VE-30012692	RES SMD	1/16W 4.7K J
R804	VE-30000536	RES CF	1/4W 150K J
R805	VE-30000843	RES MF	1/4W 10R J
R806	VE-30000982	RES MF	1/4W 4.7K J
R807	VE-30001159	RES MO	1W 0.33R J
R809	VE-30007784	RES MO	5W 33K J
⚠R810	VE-30001257	RES MG	1/2W 4.7M J
R811	VE-30000594	RES CF	1/4W 22K J
R813	VE-30000718	RES CF	1/4W 4.7K J
R814	VE-30012662	RES SMD	1/16W 2.7K J
R815	VE-30000452	RES CF	1/4W 10R J
R817	VE-30001037	RES MF	1/4W 99K F
R818	VE-30000925	RES MF	1/4W 2.2K F
R819	VE-30000466	RES CF	1/4W 1K J
R821	VE-30000470	RES CF	1/2W 10K J
R828	VE-30001260	RES WW	5W 2.2R J
R829	VE-30000718	RES CF	1/4W 4.7K J
R830	VE-30012657	RES SMD	1/16W 1K J
R831	VE-30012669	RES SMD	1/16W 22K J
R835	VE-30016802	RES WW	5W 5.6R J RAD
R900	VE-30000712	RES CF	1/4W 470R J
R901	VE-30000712	RES CF	1/4W 470R J
R902	VE-30000712	RES CF	1/4W 470R J
R903	VE-30000525	RES CF	1/2W 1.5K J
R904	VE-30000525	RES CF	1/2W 1.5K J
R905	VE-30000525	RES CF	1/2W 1.5K J
R906	VE-30000525	RES CF	1/2W 1.5K J
⚠R919	VE-30001213	RES FUSE	1/4W 1R J
J107	VE-30000683	RES CF	1/4W 390R J
J108	VE-30000712	RES CF	1/4W 470R J
J271	VE-30000712	RES CF	1/4W 470R J
S142	VE-30012673	RES SMD	1/16W 270R J
L201	VE-30001979	FIXED COIL	1UH
L402	VE-30001992	FIXED COIL	10UH
L404	VE-30001990	FIXED COIL	6.8UH
L405	VE-30026042	ADJ.COIL	
L601	VE-30001990	FIXED COIL	6.8UH
L803	VE-30001984	FIXED COIL	2.2UH
L807	VE-30001992	FIXED COIL	10UH
L810	VE-30001992	FIXED COIL	10UH
L603	VE-30002149	LINEARITY COIL	50UH
J282	VE-30001992	FIXED COIL	10UH
J313	VE-30001994	FIXED COIL	22UH
⚠TR601	VE-30017788	TRF FBT	
⚠TR802	VE-30013683	TRF SMPS	
⚠F801	VE-30001731	FUSE	2.5A
J281	VE-30006712	FERRITE BEAD	
L101	VE-30001971	FERRITE SMD	
L103	VE-30001971	FERRITE SMD	
L110	VE-30001971	FERRITE SMD	
L111	VE-30001971	FERRITE SMD	
L112	VE-30001971	FERRITE SMD	
L113	VE-30001971	FERRITE SMD	
L114	VE-30001971	FERRITE SMD	
L116	VE-30001971	FERRITE SMD	
L210	VE-30001971	FERRITE SMD	
L211	VE-30001971	FERRITE SMD	
L401	VE-30001971	FERRITE SMD	
L403	VE-30001971	FERRITE SMD	
L406	VE-30001971	FERRITE SMD	
L604	VE-30001971	FERRITE SMD	
L802	VE-30001971	FERRITE SMD	
L805	VE-30001971	FERRITE SMD	
L806	VE-30001971	FERRITE SMD	
PL101	VE-30015053	SOCKET SCART	
⚠PL903	VE-30001855	SOCKET CRT	
SG900	VE-30000428	SPARK GAP	300V
SG901	VE-30000428	SPARK GAP	300V
SG902	VE-30000428	SPARK GAP	300V
SW501	VE-30002178	SWITCH TACT	
SW502	VE-30002178	SWITCH TACT	
SW503	VE-30002178	SWITCH TACT	
SW504	VE-30002178	SWITCH TACT	
SW505	VE-30002178	SWITCH TACT	
⚠SW801	VE-30017848	SWITCH	
⚠TH800	VE-30001270	PTC	9 OHM
⚠TR801	VE-30002100	LINE FILTER	
⚠TU201	VE-30009637	TUNER WSP	
X401	VE-30001749	XTAL	
X402	VE-30015592	XTAL	
X501	VE-30002851	XTAL	
Z402	VE-30012622	FILTER SAW	
Z403	VE-30001724	FILTER SER TRAP	

JACK P.W. BOARD ASS'Y (VE-20166161)

REFER TO PARTS LIST IN PAGE 3-6 FOR THIS P.W. BOARD.

HEADPHONE JACK P.W. BOARD ASS'Y (VE-20165426)

REFER TO PARTS LIST IN PAGE 3-6 FOR THIS P.W. BOARD.

PRINTED WIRING BOARD PARTS LIST [AV-21RM4SP]

MAIN P.W. BOARD ASS'Y (VE-20161041)

⚠Ref No.	Part No.	Part Name	Description	Local
IC118	VE-30023137	IC		
IC401	VE-30013986	IC		
IC403	VE-30026922	IC		
IC500	VE-20107571	IC (MEMORY)		
IC501	VE-20091454	IC (MICOM)		
IC502	VE-30001670	PREAMPLIFIER		
⚠IC600	VE-30015306	IC		
IC800	VE-30011968	IC		
⚠IC801	VE-30015087	IC		
IC803	VE-30001500	IC		
IC804	VE-30001622	IC		
IC806	VE-30014346	IC		
⚠IC900	VE-30025172	IC		
Q101	VE-30001457	TRANSISTOR		
Q103	VE-30001457	TRANSISTOR		
Q104	VE-30001457	TRANSISTOR		
Q105	VE-30001457	TRANSISTOR		
Q301	VE-30001458	TRANSISTOR		
Q302	VE-30001457	TRANSISTOR		
Q401	VE-30001457	TRANSISTOR		
Q402	VE-30001457	TRANSISTOR		
Q405	VE-30001457	TRANSISTOR		
Q406	VE-30001457	TRANSISTOR		
Q503	VE-30001457	TRANSISTOR		
Q504	VE-30001458	TRANSISTOR		
Q601	VE-30013656	TRANSISTOR POWER		
⚠Q603	VE-30001448	TRANSISTOR	H. OUT	
Q604	VE-30001457	TRANSISTOR		
Q606	VE-30001457	TRANSISTOR		
Q801	VE-30001386	TRANSISTOR		
Q802	VE-30001457	TRANSISTOR		
Q804	VE-30001454	TRANSISTOR		
D101	VE-30007760	DIODE ZENER		
D102	VE-30007760	DIODE ZENER		
D103	VE-30007760	DIODE ZENER		
D104	VE-30007762	DIODE ZENER		
D106	VE-30001377	DIODE ZENER		
D300	VE-30001285	DIODE		
D301	VE-30001285	DIODE		
D401	VE-30012411	DIODE		
D402	VE-30012411	DIODE		
D405	VE-30007763	DIODE ZENER		
D407	VE-30001284	DIODE		
D408	VE-30001285	DIODE		
D409	VE-30007760	DIODE ZENER		
D410	VE-30007760	DIODE ZENER		
D411	VE-30007760	DIODE ZENER		
D501	VE-30001285	DIODE		
D505	VE-30001285	DIODE		
D506	VE-30001284	DIODE		
D509	VE-30001279	LED		
D512	VE-30001285	DIODE		
D513	VE-30001339	DIODE ZENER		
D602	VE-30001329	DIODE		
D603	VE-30001285	DIODE		
D608	VE-30001318	DIODE		
D609	VE-30001318	DIODE		
D610	VE-30001318	DIODE		
D611	VE-30001285	DIODE		
D614	VE-30001318	DIODE		
D615	VE-30001285	DIODE		
D616	VE-30009699	DIODE ZENER		
D619	VE-30009699	DIODE ZENER		
D620	VE-30003722	DIODE ZENER		
D800	VE-30001318	DIODE		
D801	VE-30001347	DIODE ZENER		
D802	VE-30001318	DIODE		
D803	VE-30001315	DIODE		
D804	VE-30001285	DIODE		
D805	VE-30001315	DIODE		
D806	VE-30001315	DIODE		
D808	VE-30007681	DIODE		
D809	VE-30001329	DIODE		
D810	VE-30009366	DIODE		
⚠D811	VE-30001329	DIODE		
D812	VE-30001285	DIODE		
⚠D813	VE-30001329	DIODE		
⚠D837	VE-30001329	DIODE		
⚠D838	VE-30001329	DIODE		
D889	VE-30001384	TRANSISTOR		
D890	VE-30001329	DIODE		
D893	VE-30001329	DIODE		
D894	VE-30001329	DIODE		
D900	VE-30001318	DIODE		
D901	VE-30001318	DIODE		
D902	VE-30001318	DIODE		
D903	VE-30001344	DIODE ZENER		
C101	VE-30016654	CAP SMD	100NF 16V K R	
C108	VE-30000371	CAP EL	22UF 50V M	
C114	VE-30016654	CAP SMD	100NF 16V K R	
C142	VE-30000384	CAP EL	2.2UF 50V M	
C143	VE-30012583	CAP SMD	1.5NF 50V K	
C144	VE-30012583	CAP SMD	1.5NF 50V K	
C145	VE-30012589	CAP SMD	4.7NF 50V K	
C155	VE-30012560	CAP SMD	100PF 50V J	
C159	VE-30012560	CAP SMD	100PF 50V J	
C160	VE-30000387	CAP EL	33UF 50V M	
C166	VE-30012559	CAP SMD	10PF 50V D COG	
C201	VE-30000400	CAP EL	47UF 50V M	
C205	VE-30000371	CAP EL	22UF 50V M	
C206	VE-30012610	CAP SMD	10NF 50V J	
C207	VE-30012610	CAP SMD	10NF 50V J	
C300	VE-30000400	CAP EL	47UF 50V M	
C302	VE-30000092	CAP MKT	220NF 63V J	
C404	VE-30000225	CAP CER	220PF 50V J SL	
C408	VE-30012586	CAP SMD	22NF 50V K	
C409	VE-30000345	CAP EL	10UF 50V M	
C410	VE-30000384	CAP EL	2.2UF 50V M	
C411	VE-30000345	CAP EL	10UF 50V M	
C412	VE-30012586	CAP SMD	22NF 50V K	
C413	VE-30000362	CAP EL	1UF 50V M	
C414	VE-30012585	CAP SMD	2.2NF 50V K R	
C415	VE-30012581	CAP SMD	1NF 50V K R	
C416	VE-30000362	CAP EL	1UF 50V M	
C417	VE-30000362	CAP EL	1UF 50V M	
C418	VE-30012586	CAP SMD	22NF 50V K	
C419	VE-30000413	CAP EL	4.7UF 50V M	
C420	VE-30000100	CAP MKT	330NF 63V J	
C422	VE-30000400	CAP EL	47UF 50V M	
C423	VE-30000400	CAP EL	47UF 50V M	
C424	VE-30000345	CAP EL	10UF 50V M	
C425	VE-30012586	CAP SMD	22NF 50V K	
C426	VE-30016654	CAP SMD	100NF 16V K R	
C427	VE-30016654	CAP SMD	100NF 16V K R	
C429	VE-30012589	CAP SMD	4.7NF 50V K	
C431	VE-30000362	CAP EL	1UF 50V M	
C432	VE-30012586	CAP SMD	22NF 50V K	
C433	VE-30000345	CAP EL	10UF 50V M	
C434	VE-30016654	CAP SMD	100NF 16V K R	
C435	VE-30016654	CAP SMD	100NF 16V K R	
C436	VE-30000109	CAP MKT	470NF 63V J	
C437	VE-30016654	CAP SMD	100NF 16V K R	
C438	VE-30016654	CAP SMD	100NF 16V K R	
C439	VE-30016654	CAP SMD	100NF 16V K R	
C440	VE-30000074	CAP MKT	100NF 63V J	
C441	VE-30012582	CAP SMD	10NF 50V K R	
C443	VE-30000362	CAP EL	1UF 50V M	
C444	VE-30000384	CAP EL	2.2UF 50V M	
C446	VE-30000345	CAP EL	10UF 50V M	
C448	VE-30012586	CAP SMD	22NF 50V K	
C449	VE-30012567	CAP SMD	220PF 50V J	
C452	VE-30012589	CAP SMD	4.7NF 50V K	
C453	VE-30012581	CAP SMD	1NF 50V K R	
C454	VE-30012573	CAP SMD	47PF 50V J	
C455	VE-30012573	CAP SMD	47PF 50V J	
C456	VE-30012573	CAP SMD	47PF 50V J	
C457	VE-30012567	CAP SMD	220PF 50V J	
C459	VE-30012575	CAP SMD	4.7PF 50V C CH	
C460	VE-30000345	CAP EL	10UF 50V M	
C502	VE-30000396	CAP EL	47UF 16V M	
C504	VE-30012586	CAP SMD	22NF 50V K	
C505	VE-30012589	CAP SMD	4.7NF 50V K	
C510	VE-30012586	CAP SMD	22NF 50V K	
C511	VE-30012566	CAP SMD	22PF 50V J	
C513	VE-30000371	CAP EL	22UF 50V M	
C514	VE-30012586	CAP SMD	22NF 50V K	
C515	VE-30012579	CAP SMD	82PF 50V J	
C517	VE-30012586	CAP SMD	22NF 50V K	
C518	VE-30012586	CAP SMD	22NF 50V K	
C519	VE-30000352	CAP EL	100UF 16V M	
C520	VE-30012560	CAP SMD	100PF 50V J	
C521	VE-30012562	CAP SMD	15PF 50V J	
C522	VE-30012562	CAP SMD	15PF 50V J	

⚠Ref No.	Part No.	Part Name	Description Local
C523	VE-30012585	CAP SMD	2.2NF 50V K R
C525	VE-30012566	CAP SMD	22PF 50V J
C530	VE-30012589	CAP SMD	4.7NF 50V K
C531	VE-30000384	CAP EL	2.2UF 50V M
C532	VE-30012586	CAP SMD	22NF 50V K
C536	VE-30000074	CAP MKT	100NF 63V J
C541	VE-30000109	CAP MKT	470NF 63V J
C542	VE-30000205	CAP CER	150PF 50V J SL
C543	VE-30000205	CAP CER	150PF 50V J SL
C545	VE-30012607	CAP SMD	150PF 50V J
C603	VE-30000384	CAP EL	2.2UF 50V M
C604	VE-30000345	CAP EL	10UF 50V M
C608	VE-30000107	CAP MKT	47NF 250V J
C610	VE-30000355	CAP EL	100UF 50V M
C611	VE-30000092	CAP MKT	220NF 63V J
C613	VE-30016085	CAP EL	10UF 63V 105°
C615	VE-30000359	CAP EL	1000UF 16V M
C616	VE-30000352	CAP EL	100UF 16V M
⚠C618	VE-30000180	CAP MKP	9.1NF 2000Vdc/ 1700Vpp %3.5
⚠C619	VE-30000138	CAP MKP	150NF 250V J
C623	VE-30000404	CAP EL	47UF 160V M (HR) 105°
C624	VE-30000350	CAP EL	10UF 250V M
C627	VE-30000154	CAP MKP	390NF 250V J
C628	VE-30018380	CAP EL	3.3UF 160V M 105°
C631	VE-30000410	CAP EL	470UF 50V M
C632	VE-30000100	CAP MKT	330NF 63V J
C633	VE-30016085	CAP EL	10UF 63V 105°
C634	VE-30000409	CAP EL	470UF 25V M
C635	VE-30000100	CAP MKT	330NF 63V J
C636	VE-30000387	CAP EL	33UF 50V M
C638	VE-30012581	CAP SMD	1NF 50V K R
C639	VE-30000431	CAP CER	100PF 1KV M
C641	VE-30000345	CAP EL	10UF 50V M
C642	VE-30012609	CAP SMD	68NF 50V K
C643	VE-30000116	CAP MKT	68NF 63V J
C644	VE-30000362	CAP EL	1UF 50V M
⚠C801	VE-30000094	CAP MKT	220NF 275V M AC
⚠C802	VE-30000094	CAP MKT	220NF 275V M AC
⚠C803	VE-30000433	CAP CER	1NF 1KV M B
⚠C804	VE-30000433	CAP CER	1NF 1KV M B
C808	VE-30000295	CAP CER	100NF 50V Z F
C809	VE-30000418	CAP EL	100UF 400V M
C810	VE-30000387	CAP EL	33UF 50V M
C811	VE-30000161	CAP MKP	47NF 630Vdc / 622Vpp J
C812	VE-30009208	CAP CER	470PF 1KV K
C813	VE-30000295	CAP CER	100NF 50V Z F
⚠C816	VE-30000447	CAP CER	4.7NF 4KV M E
C817	VE-30000198	CAP CER	120PF 500V J SL
C818	VE-30016654	CAP SMD	100NF 16V K R
C819	VE-30012609	CAP SMD	68NF 50V K
C824	VE-30000433	CAP CER	1NF 1KV M B
C826	VE-30000404	CAP EL	47UF 160V M (HR) 105°
C827	VE-30000411	CAP EL	4700UF 16V M
C828	VE-30000295	CAP CER	100NF 50V Z F
C829	VE-30000407	CAP EL	470UF 16V M
C830	VE-30000382	CAP EL	2200UF 16V M
C832	VE-30000295	CAP CER	100NF 50V Z F
C833	VE-30000409	CAP EL	470UF 25V M
C834	VE-30000295	CAP CER	100NF 50V Z F
C836	VE-30000431	CAP CER	100PF 1KV M
C838	VE-30000352	CAP EL	100UF 16V M
C839	VE-30000352	CAP EL	100UF 16V M
C840	VE-30000352	CAP EL	100UF 16V M
C843	VE-30000431	CAP CER	100PF 1KV M
C848	VE-30000352	CAP EL	100UF 16V M
C849	VE-30000352	CAP EL	100UF 16V M
C850	VE-30000352	CAP EL	100UF 16V M
C855	VE-30000407	CAP EL	470UF 16V M
C857	VE-30012573	CAP SMD	47PF 50V J
C858	VE-30007308	CAP CER	220PF 1KV K
C862	VE-30000367	CAP EL	1UF 250V M
C863	VE-30000433	CAP CER	1NF 1KV M B
C907	VE-30000434	CAP CER	1NF 2KV K B
C908	VE-30000415	CAP EL	4.7UF 250V M
C912	VE-30000075	CAP MKT	100NF 250V K
NOT1	VE-30000352	CAP EL	100UF 16V M
R101	VE-30012509	RES SMD	1/16W 100K J
R104	VE-30000594	RES CF	1/4W 22K J
R105	VE-30000792	RES CF	1/4W 75R J
R108	VE-30000723	RES CF	1/4W 47K J
R109	VE-30012713	RES SMD	1/16W 75R J
R110	VE-30012713	RES SMD	1/16W 75R J
R113	VE-30012713	RES SMD	1/16W 75R J
R114	VE-30012713	RES SMD	1/16W 75R J
R115	VE-30012713	RES SMD	1/16W 75R J
R116	VE-30012987	RES SMD	1/16W 56R J

⚠Ref No.	Part No.	Part Name	Description Local
R117	VE-30012713	RES SMD	1/16W 75R J
R118	VE-30000792	RES CF	1/4W 75R J
R122	VE-30000792	RES CF	1/4W 75R J
R123	VE-30000792	RES CF	1/4W 75R J
R125	VE-30012657	RES SMD	1/16W 1K J
R126	VE-30012695	RES SMD	1/16W 470R J
R127	VE-30000459	RES CF	1/4W 100R J
R128	VE-30000471	RES CF	1/4W 10K J
R129	VE-30012713	RES SMD	1/16W 75R J
R130	VE-30000594	RES CF	1/4W 22K J
R132	VE-30000723	RES CF	1/4W 47K J
R133	VE-30000718	RES CF	1/4W 4.7K J
R135	VE-30012657	RES SMD	1/16W 1K J
R153	VE-30012657	RES SMD	1/16W 1K J
R201	VE-30012674	RES SMD	1/16W 27K J
R202	VE-30012692	RES SMD	1/16W 4.7K J
R204	VE-30000459	RES CF	1/4W 100R J
R206	VE-30000459	RES CF	1/4W 100R J
R301	VE-30000471	RES CF	1/4W 10K J
R302	VE-30000471	RES CF	1/4W 10K J
R303	VE-30012641	RES SMD	1/16W 10K J
R305	VE-30012641	RES SMD	1/16W 10K J
R306	VE-30012509	RES SMD	1/16W 100K J
R404	VE-30012696	RES SMD	1/16W 47K J
R407	VE-30000590	RES CF	1/4W 2.2K J
R410	VE-30000471	RES CF	1/4W 10K J
R412	VE-30012696	RES SMD	1/16W 47K J
R417	VE-30012510	RES SMD	1/16W 100R J
R418	VE-30012510	RES SMD	1/16W 100R J
R419	VE-30012649	RES SMD	1/16W 150R J
R420	VE-30000466	RES CF	1/4W 1K J
R421	VE-30012650	RES SMD	1/16W 15K J
R422	VE-30012659	RES SMD	1/16W 2.2K J
R423	VE-30012712	RES SMD	1/16W 8.2K J
R424	VE-30000712	RES CF	1/4W 470R J
R425	VE-30000583	RES CF	1/4W 220R J
R426	VE-30012659	RES SMD	1/16W 2.2K J
R427	VE-30012674	RES SMD	1/16W 27K J
R428	VE-30000792	RES CF	1/4W 75R J
R431	VE-30012674	RES SMD	1/16W 27K J
R432	VE-30012657	RES SMD	1/16W 1K J
R433	VE-30012667	RES SMD	1/16W 220K J
R437	VE-30000466	RES CF	1/4W 1K J
R438	VE-30000466	RES CF	1/4W 1K J
R439	VE-30012657	RES SMD	1/16W 1K J
R440	VE-30012714	RES SMD	1/16W 820R J
R441	VE-30012656	RES SMD	1/16W 18K J
R442	VE-30000466	RES CF	1/4W 1K J
R446	VE-30012714	RES SMD	1/16W 820R J
R447	VE-30012714	RES SMD	1/16W 820R J
R448	VE-30012683	RES SMD	1/16W 330K J
R449	VE-30012662	RES SMD	1/16W 2.7K J
R450	VE-30000712	RES CF	1/4W 470R J
R454	VE-30000594	RES CF	1/4W 22K J
R455	VE-30012656	RES SMD	1/16W 18K J
R458	VE-30012662	RES SMD	1/16W 2.7K J
R459	VE-30012510	RES SMD	1/16W 100R J
R460	VE-30012510	RES SMD	1/16W 100R J
R461	VE-30012510	RES SMD	1/16W 100R J
R465	VE-30012692	RES SMD	1/16W 4.7K J
R466	VE-30012705	RES SMD	1/16W 6.8K J
R467	VE-30012641	RES SMD	1/16W 10K J
R468	VE-30012641	RES SMD	1/16W 10K J
R469	VE-30000670	RES CF	1/4W 330K J
R470	VE-30012683	RES SMD	1/16W 330K J
R475	VE-30012510	RES SMD	1/16W 100R J
R476	VE-30012707	RES SMD	1/16W 680R J
R477	VE-30014022	RES SMD	1/16W 47R J
R502	VE-30012695	RES SMD	1/16W 470R J
R503	VE-30012707	RES SMD	1/16W 680R J
R504	VE-30012679	RES SMD	1/16W 3.9K J
R505	VE-30012673	RES SMD	1/16W 270R J
R506	VE-30012506	RES SMD	1/16W 1.5K J
R507	VE-30012657	RES SMD	1/16W 1K J
R508	VE-30000706	RES CF	1/4W 47R J
R509	VE-30012641	RES SMD	1/16W 10K J
R510	VE-30000622	RES CF	1/4W 270R J
R511	VE-30012657	RES SMD	1/16W 1K J
R512	VE-30012504	RES SMD	1/16W 1.2K J
R513	VE-30000459	RES CF	1/4W 100R J
R514	VE-30000459	RES CF	1/4W 100R J
R515	VE-30012692	RES SMD	1/16W 4.7K J
R516	VE-30012692	RES SMD	1/16W 4.7K J
R517	VE-30012692	RES SMD	1/16W 4.7K J
R518	VE-30000471	RES CF	1/4W 10K J
R519	VE-30012698	RES SMD	1/16W 5.6K J
R525	VE-30000583	RES CF	1/4W 220R J

⚠Ref No.	Part No.	Part Name	Description Local
R526	VE-30012641	RES SMD	1/16W 10K J
R527	VE-30000718	RES CF	1/4W 4.7K J
R528	VE-30012698	RES SMD	1/16W 5.6K J
R530	VE-30012698	RES SMD	1/16W 5.6K J
R531	VE-30012692	RES SMD	1/16W 4.7K J
R532	VE-30012659	RES SMD	1/16W 2.2K J
R533	VE-30012644	RES SMD	1/16W 12K J
R534	VE-30000526	RES CF	1/4W 1.5K J
R535	VE-30000718	RES CF	1/4W 4.7K J
R536	VE-30000471	RES CF	1/4W 10K J
R537	VE-30012641	RES SMD	1/16W 10K J
R545	VE-30012644	RES SMD	1/16W 12K J
R546	VE-30000590	RES CF	1/4W 2.2K J
R547	VE-30012659	RES SMD	1/16W 2.2K J
R548	VE-30012641	RES SMD	1/16W 10K J
R552	VE-30012692	RES SMD	1/16W 4.7K J
R555	VE-30012659	RES SMD	1/16W 2.2K J
R556	VE-30012657	RES SMD	1/16W 1K J
R559	VE-30000470	RES CF	1/2W 10K J
R560	VE-30012669	RES SMD	1/16W 22K J
R561	VE-30012692	RES SMD	1/16W 4.7K J
R562	VE-30000471	RES CF	1/4W 10K J
R564	VE-30012641	RES SMD	1/16W 10K J
R601	VE-30000752	RES CF	1/4W 56K J
R602	VE-30000513	RES CF	1/4W 130K J
R605	VE-30000477	RES CF	1/4W 100K J
R612	VE-30012692	RES SMD	1/16W 4.7K J
R613	VE-30012692	RES SMD	1/16W 4.7K J
R618	VE-30012662	RES SMD	1/16W 2.7K J
R619	VE-30012641	RES SMD	1/16W 10K J
R623	VE-30000607	RES CF	1/4W 2.2R J
R625	VE-30000900	RES MF	1/4W 1.8K J
R627	VE-30000910	RES MF	1/2W 1.8R G
R628	VE-30000650	RES CF	1/4W 33R J
R630	VE-30000828	RES CF	1/4W 8.2M J
R631	VE-30000885	RES MF	1/4W 1.5K J
R633	VE-30000706	RES CF	1/4W 47R J
R634	VE-30012641	RES SMD	1/16W 10K J
R637	VE-30000621	RES CF	1/2W 270R J
R638	VE-30000612	RES CF	1/4W 2.4K J
R639	VE-30000718	RES CF	1/4W 4.7K J
R640	VE-30012662	RES SMD	1/16W 2.7K J
R641	VE-30012649	RES SMD	1/16W 150R J
R645	VE-30016868	RES MO	3W 2.2K J
R646	VE-30000500	RES CF	1/4W 12K J
R647	VE-30000466	RES CF	1/4W 1K J
⚠R648	VE-30001215	RES FUSE	1W 1R J
R649	VE-30000801	RES CF	1/4W 7.5K J
R650	VE-30000744	RES CF	1/4W 560R J
R654	VE-30000705	RES CF	1/2W 47R J
R655	VE-30000705	RES CF	1/2W 47R J
R657	VE-30012656	RES SMD	1/16W 18K J
R658	VE-30001077	RES MO	2W 10R J
R659	VE-30001123	RES MO	2W 220R J
R660	VE-30012669	RES SMD	1/16W 22K J
R661	VE-30012674	RES SMD	1/16W 27K J
R662	VE-30000712	RES CF	1/4W 470R J
R663	VE-30000459	RES CF	1/4W 100R J
R665	VE-30012708	RES SMD	1/16W 68K J
R667	VE-30024752	RES MO	5W 33R J
R801	VE-30000982	RES MF	1/4W 4.7K J
R803	VE-30012692	RES SMD	1/16W 4.7K J
R804	VE-30000536	RES CF	1/4W 150K J
R805	VE-30000843	RES MF	1/4W 10R J
R806	VE-30000982	RES MF	1/4W 4.7K J
R807	VE-30001159	RES MO	1W 0.33R J
R809	VE-30007784	RES MO	5W 33K J
⚠R810	VE-30001257	RES MG	1/2W 4.7M J
R811	VE-30000594	RES CF	1/4W 22K J
R813	VE-30000718	RES CF	1/4W 4.7K J
R814	VE-30012662	RES SMD	1/16W 2.7K J
R815	VE-30000452	RES CF	1/4W 10R J
R817	VE-30001037	RES MF	1/4W 99K F
R818	VE-30000925	RES MF	1/4W 2.2K F
R819	VE-30000466	RES CF	1/4W 1K J
R821	VE-30000470	RES CF	1/2W 10K J
R828	VE-30001260	RES WW	5W 2.2R J
R829	VE-30000718	RES CF	1/4W 4.7K J
R830	VE-30012657	RES SMD	1/16W 1K J
R831	VE-30012669	RES SMD	1/16W 22K J
R835	VE-30016802	RES WW	5W 5.6R J RAD
R900	VE-30000712	RES CF	1/4W 470R J
R901	VE-30000712	RES CF	1/4W 470R J
R902	VE-30000712	RES CF	1/4W 470R J
R903	VE-30000525	RES CF	1/2W 1.5K J
R904	VE-30000525	RES CF	1/2W 1.5K J
R905	VE-30000525	RES CF	1/2W 1.5K J
R906	VE-30000525	RES CF	1/2W 1.5K J
⚠R919	VE-30001213	RES FUSE	1/4W 1R J
J107	VE-30000683	RES CF	1/4W 390R J
J108	VE-30000712	RES CF	1/4W 470R J
J271	VE-30000712	RES CF	1/4W 470R J
S142	VE-30012673	RES SMD	1/16W 270R J
J282	VE-30001992	FIXED COIL	10UH
J313	VE-30001994	FIXED COIL	22UH
L201	VE-30001979	FIXED COIL	1UH
L402	VE-30001992	FIXED COIL	10UH
L404	VE-30001990	FIXED COIL	6.8UH
L405	VE-30026042	ADJ.COIL	
L407	VE-30002002	FIXED COIL	47UH
L601	VE-30001990	FIXED COIL	6.8UH
L603	VE-30002149	LINEARITY COIL	50UH
L803	VE-30001984	FIXED COIL	2.2UH
L807	VE-30001992	FIXED COIL	10UH
L810	VE-30001992	FIXED COIL	10UH
⚠TR601	VE-30017788	TRF FBT	
⚠TR802	VE-30013683	TRF SMPS	(170-270V)
⚠F801	VE-30001731	FUSE	2.5A
J281	VE-30006712	FERRITE BEAD	
L101	VE-30001971	FERRITE SMD	
L103	VE-30001971	FERRITE SMD	
L110	VE-30001971	FERRITE SMD	
L111	VE-30001971	FERRITE SMD	
L112	VE-30001971	FERRITE SMD	
L113	VE-30001971	FERRITE SMD	
L114	VE-30001971	FERRITE SMD	
L116	VE-30001971	FERRITE SMD	
L210	VE-30001971	FERRITE SMD	
L211	VE-30001971	FERRITE SMD	
L401	VE-30001971	FERRITE SMD	
L403	VE-30001971	FERRITE SMD	
L406	VE-30001971	FERRITE SMD	
L604	VE-30001971	FERRITE SMD	
L802	VE-30001971	FERRITE SMD	
L805	VE-30001971	FERRITE SMD	
L806	VE-30001971	FERRITE SMD	
PL101	VE-30015053	SOCKET SCART	
⚠PL903	VE-30001855	SOCKET CRT	
SG900	VE-30000428	SPARK GAP	300V
SG901	VE-30000428	SPARK GAP	300V
SG902	VE-30000428	SPARK GAP	300V
SW501	VE-30002178	SWITCH TACT	
SW502	VE-30002178	SWITCH TACT	
SW503	VE-30002178	SWITCH TACT	
SW504	VE-30002178	SWITCH TACT	
SW505	VE-30002178	SWITCH TACT	
⚠SW801	VE-30017848	SWITCH ON/OFF	
⚠TH800	VE-30001270	PTC	9 OHM
⚠TR801	VE-30002100	LINE FILTER	
⚠TU201	VE-30009637	TUNER WSP (PLL)	
X401	VE-30001749	XTAL	
X402	VE-30015592	XTAL	
X403	VE-30000074	CAP MKT	100NF 63V J
X501	VE-30002851	XTAL	
Z401	VE-30001707	FILTER SAW	
Z402	VE-30001690	FILTER SAW	
Z403	VE-30001728	TRIPLE TRAP	

FRONT AV JACK P.W. BOARD ASS'Y (VE-20166161)

REFER TO PARTS LIST IN PAGE 3-6 FOR THIS P.W. BOARD.

HEADPHONE JACK P.W. BOARD ASS'Y (VE-20165426)

REFER TO PARTS LIST IN PAGE 3-6 FOR THIS P.W. BOARD.

PACKING PARTS LIST

[AV-20RM4SE]

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	VE-50052497	CARTON BOX		
	2	VE-20155640	SNOW BOX ASSY	4pcs in 1set	
	3	VE-50030774	POLY BAG (1400*1000)		
	4	VE-70000587	POLY BAG		
	5	VE-30017763	REMOTE CONTROL UMIT	RM-C1100	
⚠	6	VE-50052496	INST BOOK	Eng/Hum/Cze/Pol/Rom/Bul	
	7	------	WARRANTY CARD	BT-54013-2TK	
	8	VE-20165670	LABEL		
	9	------	BATTERY	AA/R06 (x2)	

[AV-21RM4SE , AV-21RM4SN , AV-21RM4SP]

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	VE-50052502	CARTON BOX		AV-21RM4SN
	1	VE-50052504	CARTON BOX		AV-21RM4SP
	1	VE-50052499	CARTON BOX		AV-21RM4SE
	2	VE-20155640	SNOW BOX ASSY	4pcs in 1set	
	3	VE-50027456	POLY BAG (1700*1000)		
	4	VE-70000587	POLY BAG		
	5	VE-30017763	REMOTE CONTROL UNIT	RM-C1100	
⚠	6	VE-50052501	INST BOOK	Eng/Fin/Fre/Ger/Ita/Nor/Por/Spa/Swe/Dan/Dut	AV-21RM4SN
⚠	6	VE-50052453	INST BOOK	Eng/Dut/Fre/Ger/Ita/Por/Spa	AV-21RM4SP
⚠	6	VE-50052496	INST BOOK	Eng/Hum/Cze/Pol/Rom/Bul	AV-21RM4SE
	7	------	WARRANTY CARD	BT-54013-2TK	
	8	VE-20165678	LABEL		AV-21RM4SN
	8	VE-20165569	LABEL		AV-21RM4SP
	8	VE-20165675	LABEL		AV-21RM4SE
	9	------	BATTERY	AA/R06 (x2)	

PACKING